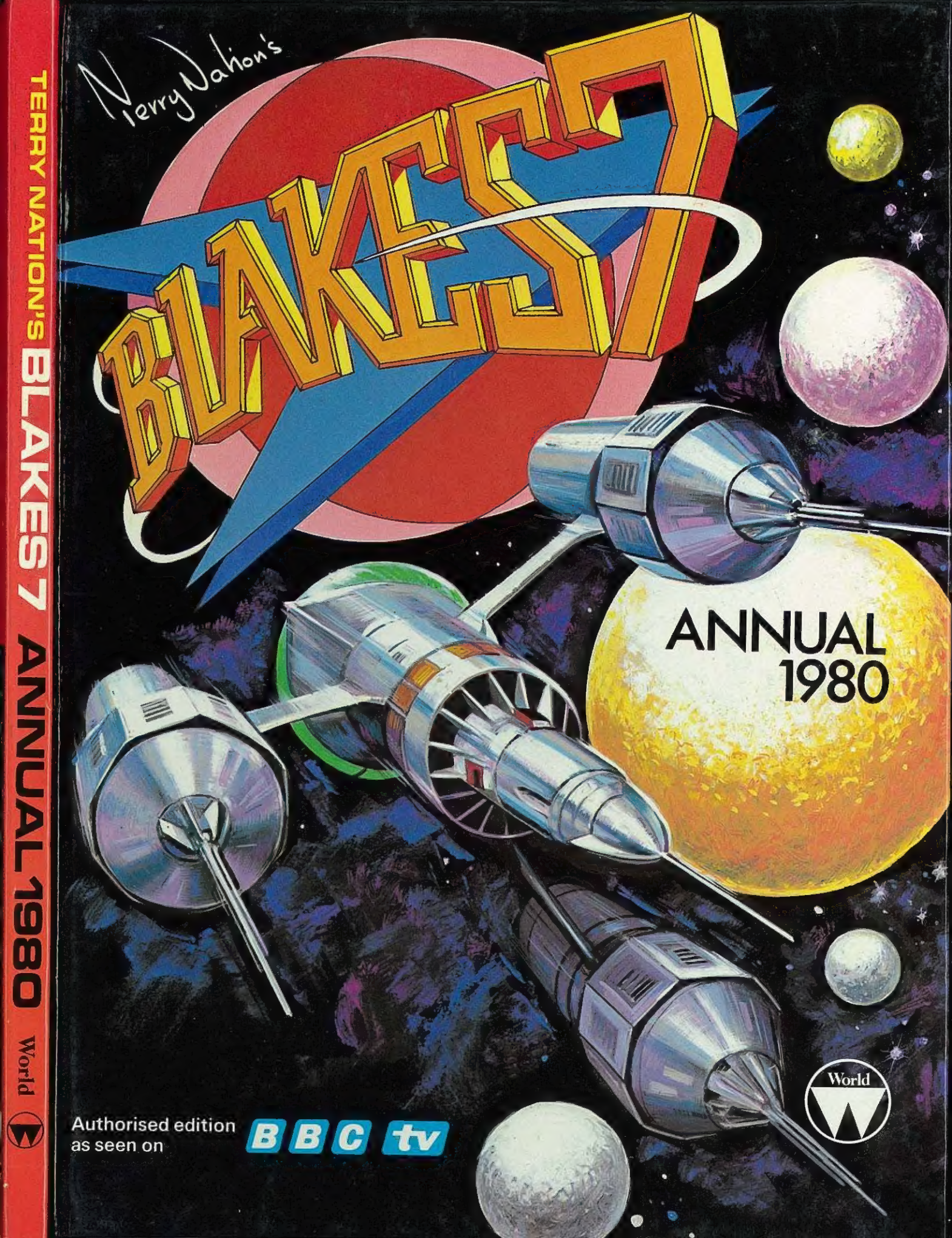
Terry Nation's
BLAKE'S 7
ANNUAL
1980
Authorised edition
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World

Terry Nation's

BLAKE'S 7

Annual 1980

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CONTENTS

STORIES

Planet of No Escape 5
Museum Piece 16
Sabotage! 33
A Task for Bondor 43
Red for Danger 52

FEATURES

UFO 14
Space Calling . . . Are You Receiving Me? .. 23
Federation Test Sheet 24
Space Facts 25
Lumps of the Lunar Landscape 26
Cygnus the Swan Constellation 30
Calling all Cals 31
Blake's Space Scrapbook 32
A Numbered Spacecraft 40
Space Logbook 41
Planet of the Ashen Light 42
All Set for Take-Off 49
The Constellations 50
Blake's Space Race 62

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World

WORLD & WHITMAN

PLANET OF NO ESCAPE

"But, Blake!" exclaimed Jenna. "Isn't it a bit like an escaped tiger going to the zoo? Isn't it rather asking for trouble?"

Blake's features had a determined look about them.

"Oh, hardly!" he replied. "Nothing so meek. Anyway, if you were a tiger who knew that other tigers were about to escape, wouldn't *you* go and lend a hand?"

"I doubt it," remarked Vila, who was far from convinced himself. "I'd be more bothered about my own survival. Wouldn't you?"

"That's right," said Avon, bitterly. "You say imagine you're a tiger – but you want us to follow you like sheep."

Blake brushed this aside. "Look, the tiger was Jenna's. I see myself simply as the astute escaped convict that I am, and I'm asking you all to join me in taking a measured chance, where I believe the odds are in our favour."

The others were silent. Even Cally didn't seem to relish this trip – after all, it *was* supposedly the planet of no escape.

"Well, I'm going," said Blake. "And so is the Liberator. I'll drop you all off somewhere if you like."

The other four exchanged glances.

"Well?"

Cally was the first to speak. "Two questions," she said. "One: do they need us, I mean *really* need us? And two: why are the odds in our favour?"

Blake didn't hesitate. "Number one, they'll almost certainly fail without us, and make it far harder

to escape another time. And number two, because we know something of the set-up there and – above all – they won't be expecting us."

"But will surprise be enough?" asked Jenna. "If we're caught, the Federation will really be laughing. What chance of stopping them then?"

"Perhaps it's all a trap anyway," added Cally.

"No." Blake shook his head emphatically. "That's just it, they'd never try and trap us with this one – they know we'd never bite."

"But that's just what you *are* doing!" exclaimed Avon, critically. "Biting and hoping, bluff and double bluff. I don't like it one bit!"

But there was no sign of Blake relenting, and it was clear that he was in no mood to wait on their decisions. For Vila, enough incentive (and this was usually a question of gain) and he was game for anything. Yet once again he knew he, like the others, would end up following Blake on a potentially suicidal plan, and with no thought of personal gain.

It was clearly a more than usually emotional decision for all of them, and Avon was giving Blake the evil eye across the Liberator's flight deck.

But when the others agreed to go, his resistance finally dropped, and with a shrug of the shoulders he conceded defeat. "Alright," he said. "I swore that wild horses would never drag me anywhere near the place, but now I'm agreeing to go there of my own free will. Anyway, Blake's probably right that it's no more dangerous for us with our bracelets than any other Federation planet . . ."

"Well, we should know soon," interrupted Jenna. "Can't be far now."

"Zen?" prompted Blake.

"TELEPORT RANGE OF CYGNUS ALPHA IN JUST ONE HOUR."

There was a moment's silence, and then Cally spoke for all of them. "I just hope it proves to be worth it," she said, "that's all."

By the end of the hour they all felt a lot happier, although far from cool and calm. The Liberator was put onto automatic pilot while they all assembled in the teleport control room.

Blake alone was in position.

"Right, I'm ready," he said. "Now you all know what you've to do?"

They nodded. They should do – they'd spent the last hour going through the plan in detail, with alternative plans in case things began to go wrong. The others were to follow Blake down in five minutes, but not until he had given the all-clear. Jenna was to stay on board as look-out in case Federation reinforcements were brought in, and to be on hand in case they had to teleport back.

"OK," said Blake, "take me down."

And he slowly dematerialised and was gone.

There was no need for anyone to say when the five minutes were up. Purely as a check, they'd asked Zen to indicate, and yet the four of them looked over at the computer fractionally before the timer began to flash.

Cally threw a switch and the flashing stopped. They were all listening expectantly for a message that never came, and the seconds ticked away beyond six minutes before anyone spoke.

It was Jenna who broke the silence.

"Blake. Can you hear me?"

He might as well have been dead.

"Looks like trouble," grunted Avon. "Shall we go down ourselves, or bring Blake up?

Vila was over by the teleport control. "We'll have to go down," he said, with a grimace. "I can't even connect with him."

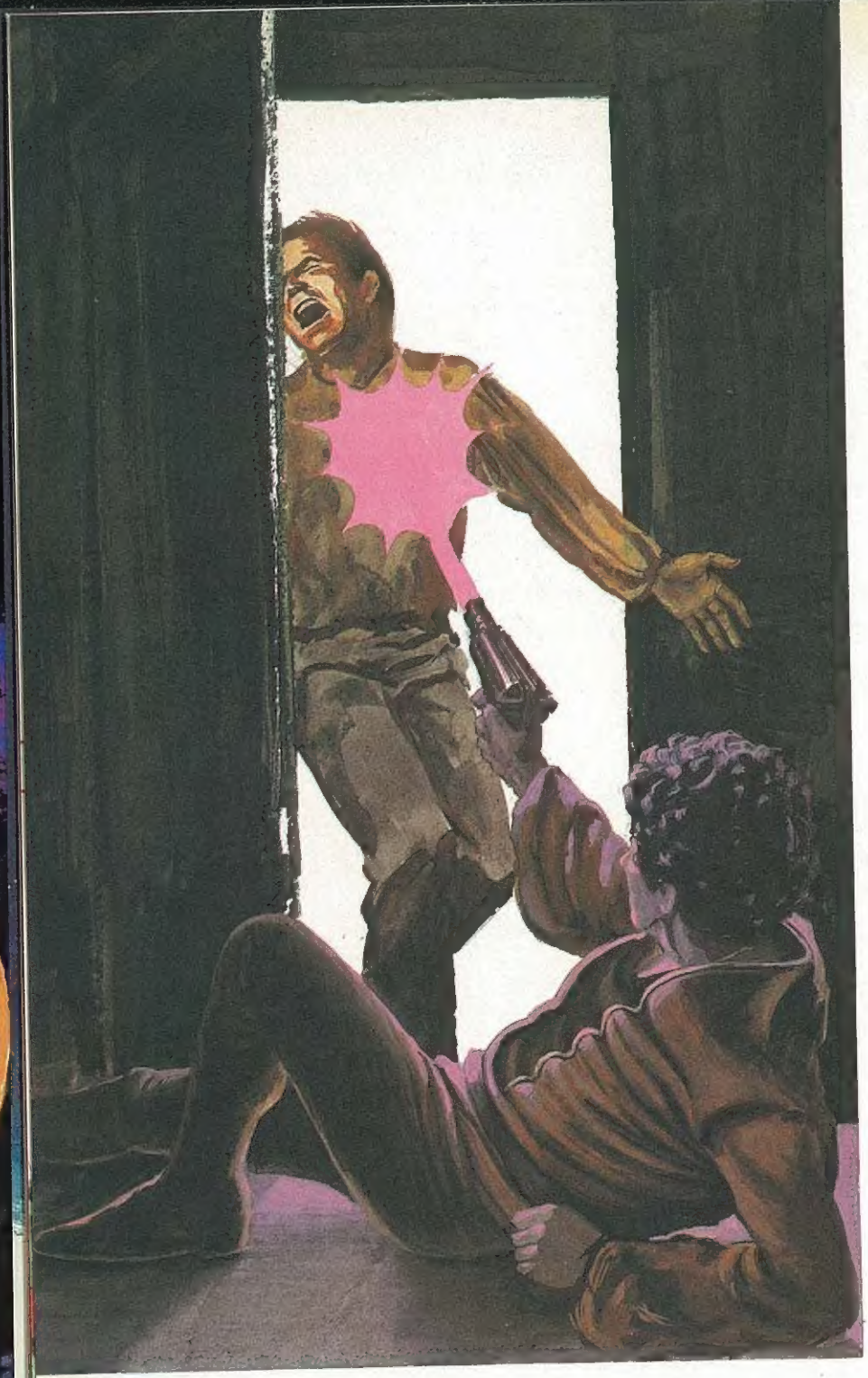
They quickly agreed that Vila should go down to the exact spot where Blake had landed, while Avon and Cally would teleport down just outside the prison complex.

Jenna set the controls and wished them luck. Then she sat and waited, wondering about Blake and what could have gone wrong.

Blake had materialised in exactly the right spot, outside cell 38, just around the corner from the guards' duty-room. But there was no sign of Hammond.

He couldn't have missed him, not the size he was. They called him Hammy, and it suited him, because he always ate like a pig and had the figure to prove it.

Blake had understood that Hammy would be there, along with this guy Purley, who was the key to the whole thing. He was a Federation Officer, and apparently quite



high up. Yet, incredibly enough, it seemed that from the very beginning he had been a plant and had secretly been building up an underground network and working towards this insurrection.

But had something gone wrong?

Blake decided to scout around and see what he could discover before the five minutes were up. He moved up the dimly-lit corridor, away from the duty-room. The lights in the ceiling were only about every twenty or thirty yards and, as he went, he stopped by each light and listened.

At the tenth light he heard a sound – it appeared to come from cell 44. Blake wondered why he hadn't checked the cells before and, uncovering the peephole in the heavy metal door, he peered inside. As he did so, he allowed the light from the corridor to illuminate the interior, for the cell itself was dark.

A figure looked up from its pacing to and fro across the tiny cell. Blake didn't know the face, but he was surprised to see the Federation uniform on a man locked in a Federation cell.

There seemed an obvious explanation.

"Are you Purley?" he mouthed through the glass.

The man looked puzzled.

"Pur-ley?" he repeated the movements. "Are you Pur-ley?"

There was a glint of recognition, and Blake heard as well as saw the word 'yes', which was followed by an eager nod.

Looking down, Blake was surprised to see the key in the lock. He estimated he had another two minutes yet. What should he do? He should really get the others, but no, he would find out all he could first.

Blake turned the key and pushed open the door. As he did so, the man tried to rush past, but – grabbing hold of his arm – Blake pulled him back.

"Oh no, you don't . . ." he began, but with strength belying his smallish stature, the other man was so determined he eventually broke away from the grip. Before he had time to think, Blake found himself thrown back on the floor of the cell, while his fleeing adversary was about to shut the door on him.

Instinctively Blake went for his weapon, but although he scored a definite hit, it didn't prevent the inevitable. As the key turned in the lock, Blake cursed under his breath – how could he have been so dumb?

Oh well, he thought, there's only one thing for it – I'll have to get them to teleport me up. It must be about five minutes by now, anyway.

But there was worse to come. His wrist was empty – the bracelet must have been pulled off in the scuffle. He looked hopefully round

the small cell, but all he could see was the customary one table and one chair outlined in the faint light.

As Vila began to materialise outside cell 38, he fancied he saw a uniformed figure staggering around the corner away from him. He might have the bracelet . . . .

He decided to check. "Jenna, can you update those co-ordinates? The ones for Blake's bracelet."

"Five seven three."

"Same as before. Location?"

"Along corridor D."

Vila shuddered. He had rather strong memories of prison corridors and, for just a moment, he couldn't believe he'd agreed to come.

"Is everything alright?" asked Jenna, cutting the uneasy silence.

Vila steeled himself. "Alright so far. Very quiet, in fact almost too quiet, but I'll keep you informed."

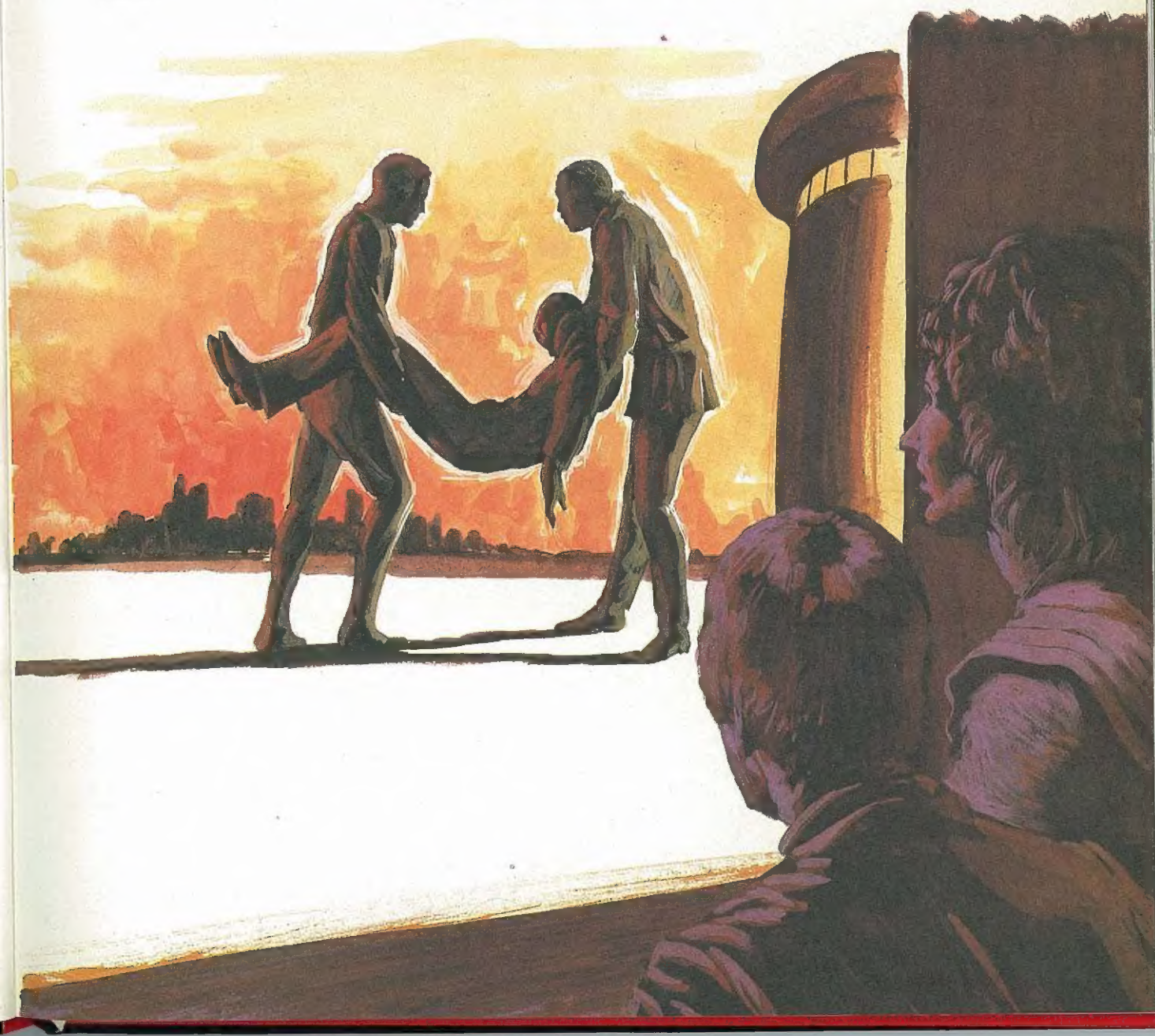
He looked around. It really did seem too quiet. Where were the guards? Where was Hammy? Where was Blake? And who was that figure he'd seen?

Then, as he began to make his way up corridor D, he heard a noise as if someone were banging on the walls of a cell, some way off. He tried to gauge the distance, then hurried on.

Meanwhile Cally and Avon found themselves within sight of the main entrance, and conveniently screened from view by the wall of a small building used as a guards' control-point when the automatic control was out of action.

At first glance the scene seemed quite ordinary, but a moment later they were surprised by what they saw. A Federation Officer was being carried along by two people whose faces were hidden, and the officer appeared to be unconscious.

As this group reached the entrance and went inside, another two similar groups came into view, together with one man on his own, who was gesticulating and pointing and seemingly organising the operation. His frame was extremely bulky, and he was a little out of breath.



Cally nudged Avon. "Look, there's Hammy!" she said, pointing. They had known him during their time on Earth.

"Yes, and it looks as if the battle's already won," said Avon. "So much for not managing without our help!"

Avon sounded bitter, yet he couldn't help but be excited at the thought of Cygnus Alpha being wrested away from the Federation.

All the same, they must be cautious. They waited until Hammond, having paused briefly by the entrance, came back towards them. As he came level, Avon sprang out and, taking him completely by surprise, pulled him into their hiding-place.

Avon had his hand over Hammond's mouth.

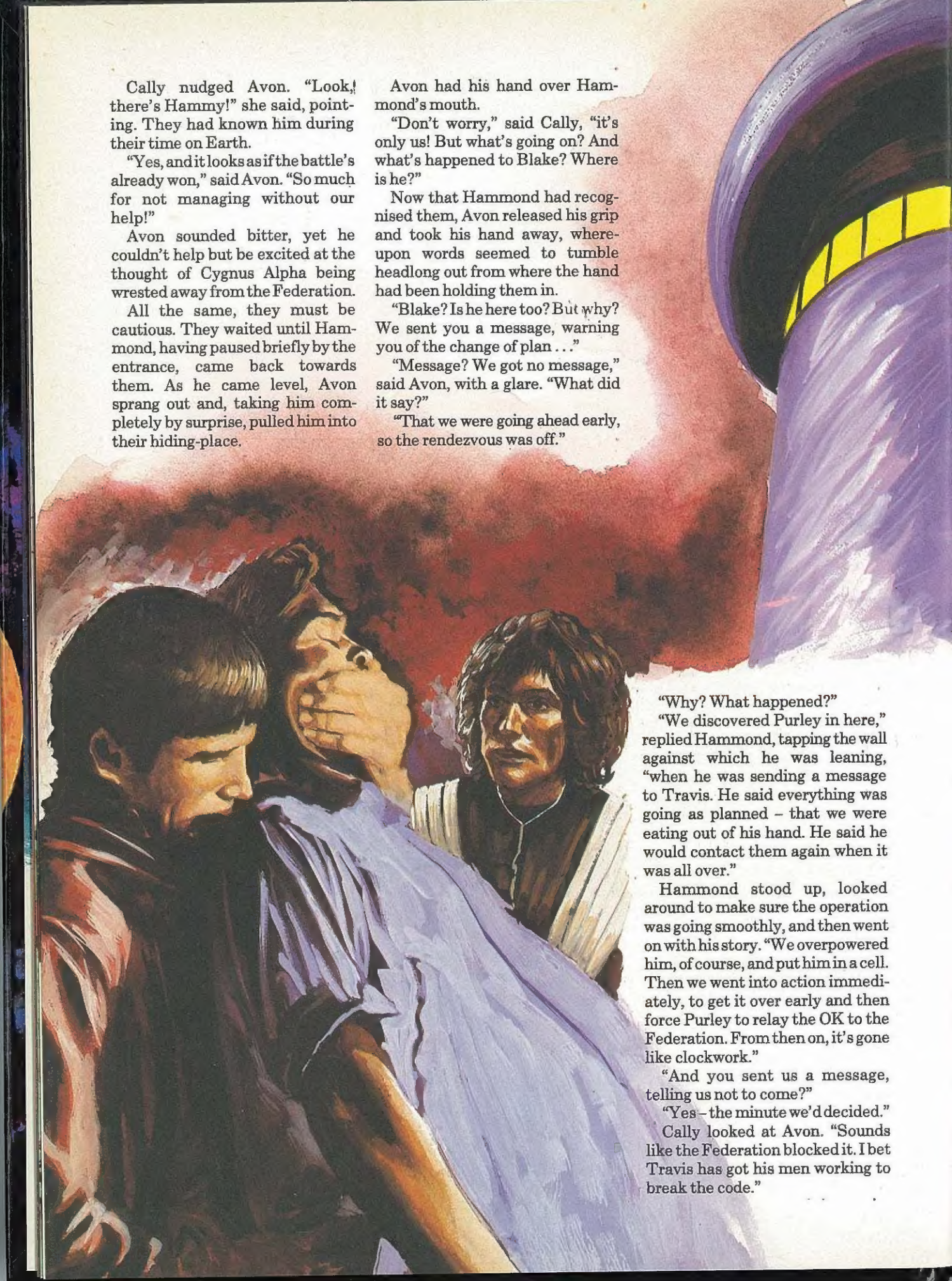
"Don't worry," said Cally, "it's only us! But what's going on? And what's happened to Blake? Where is he?"

Now that Hammond had recognised them, Avon released his grip and took his hand away, whereupon words seemed to tumble headlong out from where the hand had been holding them in.

"Blake? Is he here too? But why? We sent you a message, warning you of the change of plan . . ."

"Message? We got no message," said Avon, with a glare. "What did it say?"

"That we were going ahead early, so the rendezvous was off."



"Why? What happened?"

"We discovered Purley in here," replied Hammond, tapping the wall against which he was leaning, "when he was sending a message to Travis. He said everything was going as planned – that we were eating out of his hand. He said he would contact them again when it was all over."

Hammond stood up, looked around to make sure the operation was going smoothly, and then went on with his story. "We overpowered him, of course, and put him in a cell. Then we went into action immediately, to get it over early and then force Purley to relay the OK to the Federation. From then on, it's gone like clockwork."

"And you sent us a message, telling us not to come?"

"Yes – the minute we'd decided."

Cally looked at Avon. "Sounds like the Federation blocked it. I bet Travis has got his men working to break the code."

But Avon was examining a wire he'd noticed, leading across to the prison block. "What's this?" he asked Hammond.

The large man smiled. "Oh – just in case they do rumble us, we've wired up the whole block and set it to go up as soon as we've got this lot in." He pointed to one of the uniformed men, and laughed. "Imagine – all the Federation Officers, locked in their own cells, and then..."

"But Blake's somewhere in there!" exclaimed Cally, looking very worried. "And Vila, too!"

"We'd better check it out," said Avon. "When's that thing due to go off?"

"Three minutes. And there's no way of delaying it."

"We'll see about that! Cally, you contact the ship..."

She'd hardly activated her bracelet when Jenna spoke urgently: "Cally! Is that you? I just picked up a space craft on the Scanner, approaching at speed. Looks like the Federation. I'm preparing for evasive action. What about you? Are you ready to move?"

Cally explained their position.

"Well, you've five minutes at the most," said Jenna. "I've heard nothing from Vila or Blake, mind you, but I'll be standing by."

"Go and prepare to repel the attack," Avon told Hammond. "Then if I can delay this we'll perhaps be in some position to help..."

Just at that moment, a uniformed figure appeared at the prison entrance, staggered a few paces and fell to the ground. It was Purley, and in his hand was the key to cell 44.

Blake sat in the cell with his elbows on the table and his head in his hands. He couldn't see what else he could do. He'd made enough noise to waken the dead . . . but it had done no good.

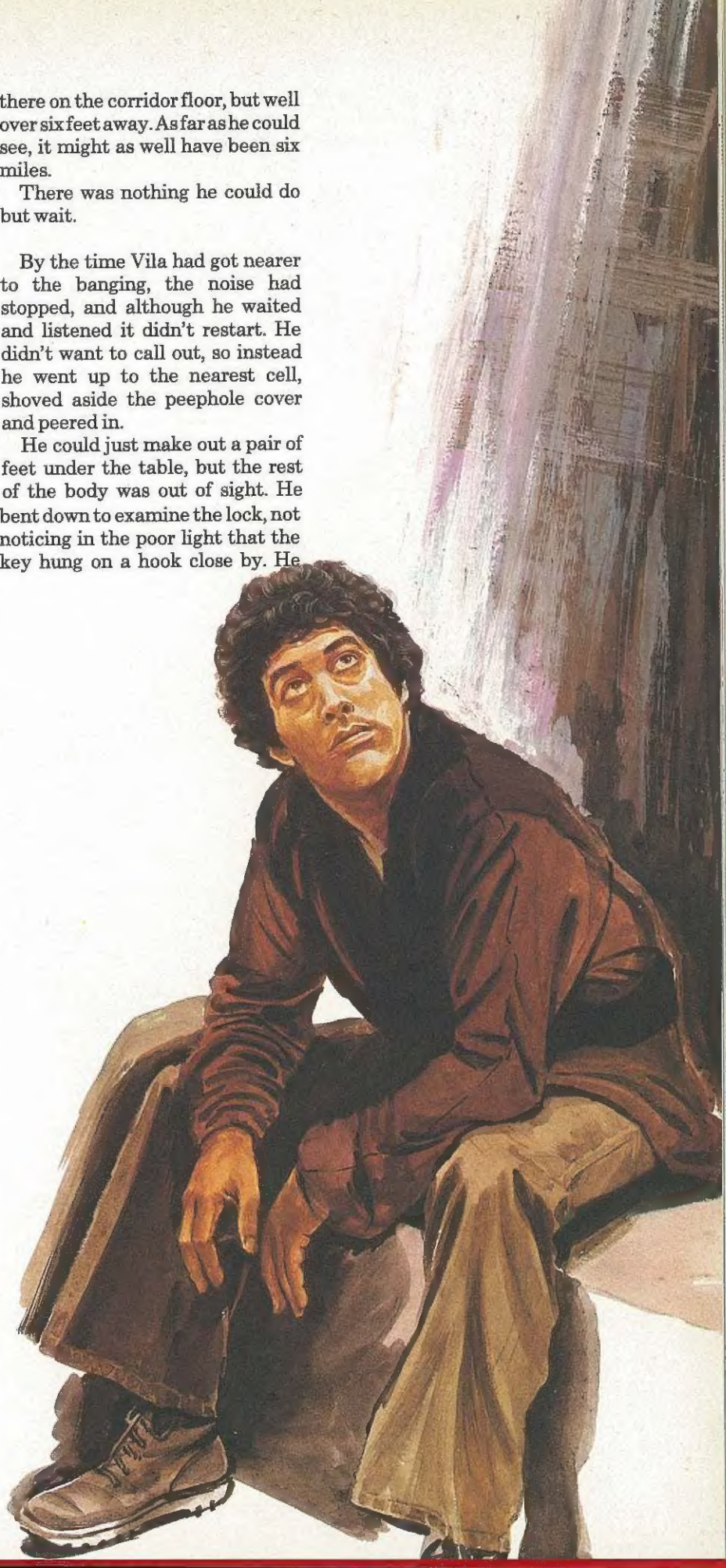
Then he'd managed to weaken the glass in the door with a few blasts from his gun, so that he could break it and push it through, using the leg of the chair.

Now the annoying thing was that he could see the bracelet lying there on the corridor floor, but well over six feet away. As far as he could see, it might as well have been six miles.

There was nothing he could do but wait.

By the time Vila had got nearer to the banging, the noise had stopped, and although he waited and listened it didn't restart. He didn't want to call out, so instead he went up to the nearest cell, shoved aside the peephole cover and peered in.

He could just make out a pair of feet under the table, but the rest of the body was out of sight. He bent down to examine the lock, not noticing in the poor light that the key hung on a hook close by. He



set to work, thinking how ridiculous it was that he should be trying to break *in* to one of these cells.

It must have taken him at least a couple of minutes, as it wasn't easy to see what he was doing and anyway it was a type of lock he'd never come across before. But at last he threw open the heavy door and rushed in.

Now he could see the whole body. It was a Federation Officer, still breathing, but absolutely still.

Vila thought for a minute. What could it mean? Well, it didn't help him to find Blake, and there was no sign of the bracelet, so no point in hanging around.

He shut the door behind him – now noticing the number 40 above the glass – and moved quickly on up the corridor, past one door, then another, then another, until at last, coming to another light, he saw first the glass strewn over the floor, and then: the bracelet!

He looked through where the glass had been and saw Blake sitting at the table.

"Blake!" he hissed.

"Vila!"

"Don't worry, I'll have you out in no time."

Relieved to have found Blake, Vila turned his attention to the lock on cell 44, not realising just how little time he might have left.

Meanwhile Avon himself was struggling with trying to delay the bomb without actually setting it off. It had taken him over two minutes to work his way carefully into the timing mechanism, only to find the adjustment lever was covered by a locking device.

However helpful Cally might be, he would gladly swop her for the lazy Vila right now if he had the choice. But he hadn't, and the sweat on his fingers made the job even more difficult as precious seconds continued to tick away.

Vila wasn't hurrying as much as he might. Anyway, to his annoyance, the lock on cell 44 was a different one still.

Seeing that he was having trouble, Blake thought he'd use the

time to contact Jenna back on the Liberator. "Chuck us up the bracelet," he said.

Vila handed it through the opening, then resumed his work.

"Jenna, it's Blake . . ."

He was immediately interrupted by Jenna. She didn't waste time on explanations, but came straight to the point: "Blake," she said, "you're in danger of being blown up in there! Prepare to teleport immediately!"

At the same time, Avon and Cally began to dematerialise with no warning at all, Avon having just managed to activate the delay (he wasn't sure how long for) with a matter of seconds to spare.

As they rematerialised, Cally was still midway through congratulating him. And then everything had to be explained to Blake, of course.

"It seems you were right, wanting to keep away," he said, at last. "We were more of a hindrance than a help. If it hadn't been for their message to *us*, they wouldn't have the Federation on their tails now. How's about giving them a hand?"

This time there was no hesitation. And together with Hammond's lot, they managed to repel the attack, for the moment at least.

As they turned away, there was a sizeable explosion on the surface of the planet.

Avon smiled a satisfied smile. "I'm glad I came," he said, "if just for that."

"Yes – and look!" said Cally. "Vila hasn't come away empty-handed, either!"

A somewhat embarrassed Vila was clutching the lock mechanism from cell 44. "It just came away in my hand," he muttered feebly. "Honest!"

It all seemed a fitting end to a rather far-fetched sort of day.

UFO

The Soviet Union's control base, Baikonur, has just launched its latest expeditionary crew, in a rocket bound for Mars.

However, a severe storm shortly after take-off caused radio interference, and a loss of communication with the rocket for some twenty minutes.

Before contact could be re-established, another unknown craft was picked up on the radar control.

Your help is needed to identify this UFO.

What you must do:

Use your knowledge of space to solve the ten clues.

The two answers you need – the name of the the craft and its place of origin – will be found located in the two panels of the spaceship, once you have filled in the other answers.

From this information, you should be able to work out who is manning the ship.

To check your solutions, it may be helpful to know that the thirty letters *within* the panels of the ship can be rearranged to give the following message: "NB. Baikonur Rocket Base lose flight."

Your Clues:

1
The Russian rocket was blown about, or ––––––––, by the storm.

2
There are two bands of radiation around the earth, called ––– ––––– –––––, after the scientist who discovered them in 1958.

3
––––– ––––––, nicknamed Buzz, was Neil Armstrong's companion on the first moon walk.

4
––––– is number one, of seven!

5
The Russians have a huge ––––––––– telescope on Mount Semirodniki. It has a mirror 6 metres in diameter, and is used to analyse the light from stars and galaxies.

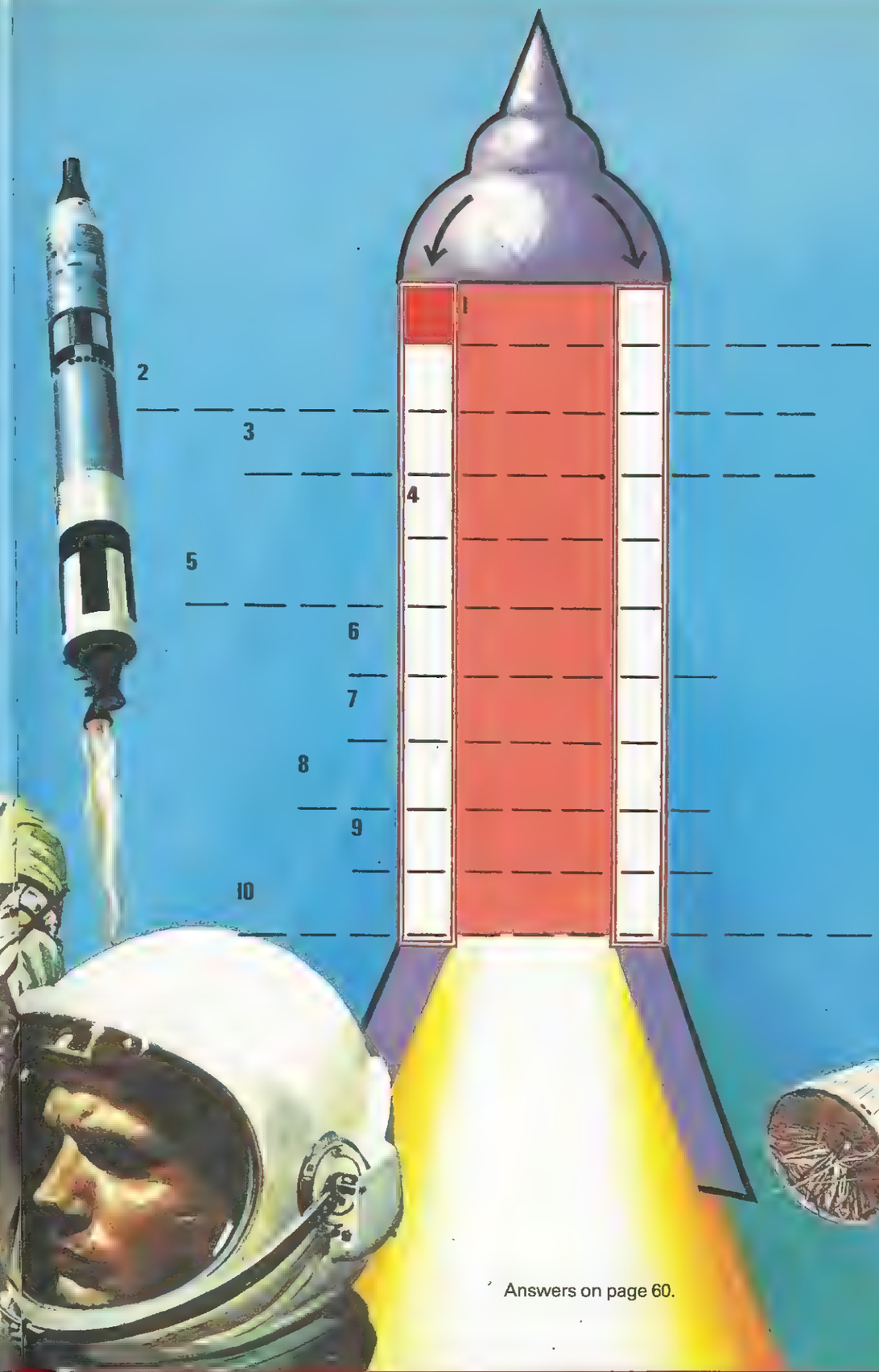
6
Spacecraft use the ––––––– velocity of one planet to help them on to the next, with a whiplash effect.

7
The Lunar Module *Intrepid* landed right on ––––––, only 200 metres from Surveyor 3, which was already on the moon. On the previous mission, Apollo 11, *Eagle's* landing had been less accurate.

8
An –––––––– is a minor planet between Mars and Jupiter, perhaps the remains of a planet which broke up, or failed to form.

9
The Russian spaceship, ––––––– 2, carried the first ever 'spacewalker', Alexei Leonov.

10
Many of the inhabitants of the penal planet Cygnus Alpha had been sentenced to life ––––––––––.



Answers on page 60.

MUSEUM PIECE

Deep in the silent blackness of interplanetary space, a small winged satellite was homing in on the rhythmic signal that would guide it back to earth, its mission completed.

But inside the steel shell the complex instruments had picked up another, more persistent signal, and in reply the navigation unit flashed out a new course, sending the tiny satellite veering away from Earth towards another, far distant planet.

Cally stared at the computer readout in a trance, too bored to take in the decoded messages. She rubbed her eyes and yawned, glancing casually at the screen as yet another piece of useless information flashed across. Except that this was different. Jolted out of her langour, she called to Blake.

"Look at this! What a bit of luck."

Roj Blake looked at the screen. Since they had started tapping Federation communications they had had several scoops, but this one looked extra good. According to the readout, a Federation satellite which had been photographing military installations on 'unco-operative' planets had gone out of control and was heading for deep space.

"Get me a fix on the satellite's course, Zen," said Blake. "If we can get to that satellite before the Federation, those planets will have a much better chance against the Fed bully boys."

"SATELLITE IS A TYPE B60 AND IS HEADING STRAIGHT FOR MEMORANTUS, CO-ORDINATES 23 9 40."

"Right, Jenna, set your course to intercept the satellite and hope that the Feds haven't any long distance ships in this sector."

The Liberator made the jump into deep space and Jenna guided the ship until they were in the same orbit as the satellite.

Suddenly Avon noticed that the satellite was moving out of orbit, towards Memorantus. "Something must be attracting it," he said, watching the radar screen. "The type B60 needs an outside stimulus to take it out of orbit."

"But that's ridiculous," said Blake. "Federation influence doesn't extend this far, and surely no one else would be interested in the information the satellite contains."

Avon shrugged. "All I know is that the B60 only goes where it's told to go, and that means that someone has had designs on it ever since it changed course."

"I say let them have it," said Vila. "As long as the Federation doesn't get it, why should we care?"

"Exactly," said Avon. "Why risk our necks when it's already out of harm's way?"

"I hate to have to tell you this," interrupted Jenna, "but there's a ship on our tail and it looks like our old friend Travis."

Blake looked at Avon. "I think that settles it then, don't you?"

Avon knew better than to argue.

Blake chose Avon to accompany him down to the planet as *he* knew what they were looking for. Jenna had plotted the estimated landing site, and as the two men clipped on their transporter bracelets she prepared to beam them down to Memorantus.

The surface of the planet was flat and desolate, as if all life had been scoured away, but Blake hadn't come here to admire the view. Anxiously he scanned the horizon with his powerful binoculars.

"What's that?" said Avon suddenly, pointing to a rocky outcrop.

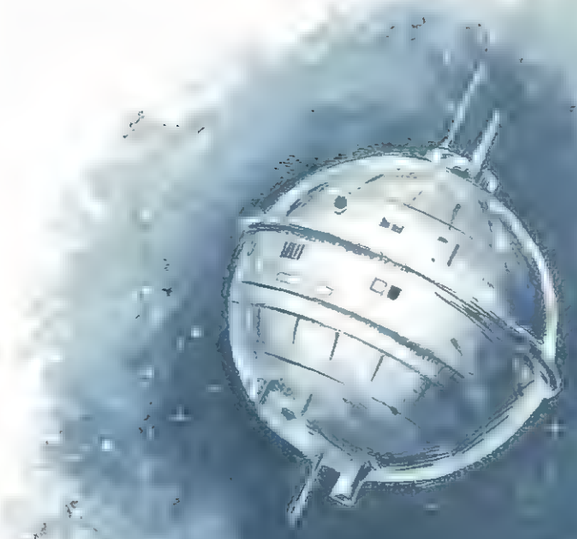
Blake trained his glasses on the rock just as a low black vehicle skimmed across the dusty earth. It hovered by the rock while two black figures climbed out. Soon they emerged from behind the rock with the satellite and loaded it into the vehicle before driving away.

"Quickly! Follow them!" hissed Blake, scrambling to his feet.

"I still say we should let them keep it," gasped Avon as they ran. Dust caked his sweating face and he glared at Blake.

Suddenly the black vehicle disappeared over the horizon, and as the two men approached they saw that the land dipped into a natural bowl. A complex of vast, domed buildings spread across the centre of the bowl and, as they watched, the dark figures unloaded the satellite and took it into one of them.

Cautiously, Blake and Avon



followed, unaware that hidden cameras were monitoring their every move....

"Intruders entering block D4," said R1, his harsh voice displaying no emotion, no triumph at the thought of yet another exhibit for the Universal Museum. "Guards in that section detain and prime, then take them to level 3 for inclusion in tableau 9."

He watched as Blake and Avon were overcome and taken to the priming room. He then turned his attention to the satellite, which was at that moment being prepared for display under the heading *Satellite: Origin – Terra; Function – photography of military installations.*

Had he been human, he would have been pleased at the way the museum was filling up. He would have been proud to think that the people of Memorantus had not died in vain, that in spite of the terrible plague that had devastated the land, their work lived on. But R1 was not human. Robots did not show emotions. R1 and his team were simply fulfilling the task set them by their masters years before – to fill the museum with relics and documents from the whole of the known universe. To make the entire planet a library of the universe so that future scholars would know and wonder at their beginnings.

In the priming room Blake and Avon were strapped into steel chairs and their feet were wired up to a bank of winking instruments by two blank-faced robots.

"This is the last time I listen to you, Blake," said Avon, harshly.

"It could be the last time you do anything," said Blake, watching the robots as they set the dials on the console.

"Subjects ready," said R22. "Start the countdown."

Blake and Avon tensed as the seconds ticked by. What would happen to them? What possible use could they be to these mechanical beings? 5...4...3...2...1. R21 pressed the button and the wires began to glow. A white hot pain crept up Blake's leg, burning its way through his nerves on its inexorable way to his brain.

Soon his whole body was one burning pain; but in spite of his bonds his body arched, straining to be free of the terrible white heat. As it crept up his neck and into his head his mouth opened in a silent scream, then mercifully everything went black.

"Priming complete," said R22. "Subjects ready."

Meanwhile, in his control room, R1 had noted the presence of the two spaceships orbiting the planet. He would deal with the larger one first.

At the touch of a button, two tiny black craft were launched from the roof of one of the domes and, undetected by the Liberator's sensors, attached themselves to either side of the ship, where they began to glow.

Immediately Zen registered their presence. "ALIEN MATTER ATTACHED TO THE SHIP. CIRCUITS NO LONGER UNDER MY CONTROL..."

Abruptly, Zen was silent and all his lights went out. The Liberator lurched heavily as some unseen force activated the engines.

Jenna Stannis flung all the controls to manual . . . but it was no good. The ship moved on towards Memorantus and nothing she could do would alter its course.

Vila rushed in. "What's happening? Is Blake in trouble?"

"I don't know about Blake, but *we're* in trouble," said Jenna. "Someone down there seems to want to meet us."

The two black craft guided the Liberator down to the planet until it hovered over one of the domes. Slowly the centre of the dome slid open and the ship dropped down into a vast hangar.

Jenna, Cally and Vila watched in amazement as scores of black robots scurried across the hangar.

"Quickly! We must hide!" said Vila. "With any luck they won't realise there's anyone on board."

"Huh!" said Cally scornfully. "I prefer to fight it out – to the death, if necessary!"

Jenna was more cautious. "He may have a point, you know. I think it's worth a try."

But Cally was adamant. "I'm

staying here," she said. "But don't worry, I won't give you away."

Vila had pulled the cover off one of the air vents that ran round the ship, and they climbed inside, closing the grid after them. The ventilation system had stopped when the ship was taken over, and they had to lie with their faces to the grid to get enough air.

It didn't take the robots long to force their way in, and although Cally fought hard she was greatly outnumbered. Her weapon was knocked from her hand and she was pinned to the floor while one of the robots bound her wrists and ankles. "Take her to D4 for priming," said the leading robot.

More robots filed into the Liberator and began to measure up and take notes. They toured the entire ship, and Vila and Jenna had to duck back out of sight as one robot peered through the grid of the ventilator.

At last they finished and, seemingly satisfied that the ship was empty, they filed out in twos.

"What now?" said Vila, climbing down and helping Jenna out of the vent.

Before she had time to answer there was a disturbance outside. The dome had opened to admit another ship, also guided by small black craft. It was a Federation ship, and as they watched the doors opened and a group of soldiers rushed out, their weapons blasting the robots from their path.

Soon a full scale battle was taking place, and in the confusion Jenna and Vila slipped out of the ship. "I overheard them saying something about taking Cally to D4," said Jenna. "Let's hope we find her in time."

In his control room, R1 was busy rounding up his forces to subdue the Federation troops, and for a few moments he neglected to look at the monitor screens. He didn't see Jenna and Vila as they made their way along the corridors, and he missed them as they entered section D4.

While Jenna kept watch, Vila opened the door a fraction. He could just make out the figure of Cally, strapped to a steel chair, and opening it a little more he saw two robots, their backs to the door.

"Would you like to go first?" he whispered, and grimaced when Jenna shook her head. Grasping his weapon he motioned her to follow him and then flung the door open. Before the robots could react, he and Jenna gunned them down and quickly freed Cally.

"They said something about taking me to join the others," she said. "They mentioned tableau 9, whatever that is, on level 3."

"According to the door numbers this is level 2," said Vila, "which means that we want to go up a floor."

"There's a lift here," said Jenna

from the far side of the laboratory. "Let's see where it goes."

As the lift doors closed she pressed the button marked 3 and within seconds they opened again on level 3. The three space travellers gasped in amazement. They were in a huge glass dome, and there on all sides were the fruits of the robots' efforts. Large cases containing every conceivable kind of animal, bird and fish flanked the great circumference, while the centre was occupied by relics of spaceships from all over the universe. With a pang, Jenna recognised an old, battered twin-wing GD-5 that she had flown in her early smuggling days.

Radiating out from the centre were more displays, of a more sinister nature.

They contained figures from many of the known worlds, set in stiff tableaux to illustrate their various cultures. They looked like waxworks, but something in their wide, staring eyes – be they one, two, or twenty – gave Cally an uncomfortable feeling that these beings were still alive. Her telepathic senses were picking up a jumble of fearful sensations and she shuddered.

"6 . . . 7 . . . 8 . . . oh dear," said Vila, pointing at the cabinet marked 9. It contained the rigid figures of Blake and Avon, and their limbs had been arranged so that they looked as if they were fighting over a steel sphere at their feet. A label announced that the sphere was a satellite of Terran origin, and the two men were Terran warriors.

"Look at their eyes," said Cally as they stared in horror. "They're moving."

Sure enough, Blake and Avon were moving their eyes in an agonised attempt to communicate with their friends.

"Vila, can you get them out of there?" said Jenna.

For a man of Vila's skills the cabinet presented no problem, but helping the two men was a very different matter. Their bodies were completely rigid and felt ice cold to the touch.

Cally used her telepathic powers to probe Blake's mind in the hope that he could give her some clue as to how to help them. She saw the terrible pain he had suffered, and felt the agony of his living death, and then, at last, she saw in his mind a picture of his hand, bathed in a green light, and

his fingers being manipulated into a certain position.

"Blake," she said, "the green light – is that what eases the paralysis? Move your eyes if you mean yes."

Blake's eyes moved tortuously from side to side.

Cally probed deeper into Blake's mind for a picture of the instrument used, and when she thought she knew what to look for she nodded to the others.

Gently they carried the two men to the lift, then hurried back for the satellite, the innocent cause of all their troubles. Back in the laboratory Cally described what they were looking for and Vila offered to keep watch while the other two searched.

"Is this it?" said Jenna, holding up a long, bullet-shaped gun. Cally looked at Blake for confirmation and once again his eyes moved from side to side.

"I hope you're right," said Jenna, and she switched it on.

Immediately an arc of vivid green light appeared. Jenna directed the beam on Blake and Avon while Cally and Vila held them upright.

"It's working!" said Vila, as Avon's limbs began to twitch. Hurriedly they rubbed his arms and legs to bring back the circulation, and soon he could bend them a little.

Blake took longer, but at last both men could move, albeit stiffly.

They were just in time. Two Federation soldiers burst into the laboratory, and it was only Cally's fast reactions that saved them.

Stepping over the bodies, Blake took command. "Let's get the hell out of here," he said. "Next time it could be Travis."

"It didn't take you long to get back into the swing of things," said Avon sarcastically.

Blake ignored him and pointed to the satellite. "And blow that thing up before we go."

Vila was aghast. "Do you mean to tell me that after all we've been through to get it you're just going to destroy it?"

"Of course!" said Blake. "It's no good to use. I just didn't want it to get into the wrong hands."

He looked round at his speechless comrades and grinned. "Come on," he said, "don't just stand there. The Feds will be here any minute."

Avon sighed and said, "Just as I thought. He's back to normal alright!"

SPACE CALLING . . .

Are You Receiving Me?

For years now scientists and others interested in space have been seeking positive proof that there are other civilisations in space, besides the one on earth. Many believe that some of these civilisations are much more advanced than our own, and they are willing, nay, eager, to get in touch with them as soon as possible.

Therefore a theory put forward by an American astronomer and a Russian electronics engineer is being greeted with great enthusiasm by those eager to make contact with life on other planets.

William McLaughlin and P. V. Makovetskii believe that radio signals from outer space could be picked up from cosmic listening stations and these could hold valuable clues to possible alien life in space. Indeed, their theory is held in such respect that NASA are already planning to test it by employing a giant radio telescope like the one used to track space probes in the jet propulsion laboratory in California. They believe that messages could be sent by binary code, the language used by computers to speak to each other!

The two scientists believe that any unusual event taking place in space, such as the celestial outburst some years ago caused by a nuclear explosion, would be seen by others in space besides those on earth.

They also feel that these aliens might try to get in touch with earth to ask their reactions, and that these signals should be arriving any time now.

So come in, space . . . we are waiting to receive you . . . over and out!

This is one of the tests that trainee Federation agents have to answer correctly. How many questions can you answer?

FEDERATION test sheet

1. How big is the sun?

2. What is the horsehead nebula?

3. How thick are the rings of Saturn?

4. Do galaxies evolve?

5. Did the earth once have more than one moon?

Check your answers on page 60

SPACE FACTS

Here are a few pictures of objects which recall man's fascination with space.

The astrolabe which was used to measure the altitude of stars and planets was invented by a Greek named Hipparchus who lived about 125 B.C.

In the early 17th century Galileo was the first man to look into space through the newly-invented telescope. By doing this Galileo was able to prove that Copernicus was correct when the latter insisted that the sun and not the earth was the centre of the solar system.

The first man-made object to strike the moon was the Russian Lunik 11 Space Probe . . . it looked like a metal cricket ball!

On July 20th 1969, Neil Armstrong stepped out onto the moon's surface for the first time in history. He found that the moon, unlike nursery beliefs, was not green, but had brownish, medium grey soil-dust, slightly cohesive, and contained 'glasslike' beads.

LUMPS OF THE

MOON MAP. Nearside, showing moon landings.

LUNAR LANDSCAPE

One complete decade has now passed since the historic Apollo 11 flight, and the reality of a man on the moon. And the last moon landing – during the Apollo 17 mission – was as long ago as December 1972.

But since then, work has been going on, analysing the various samples of moon rock and lunar soil, to see what can be learnt about the moon and its history.

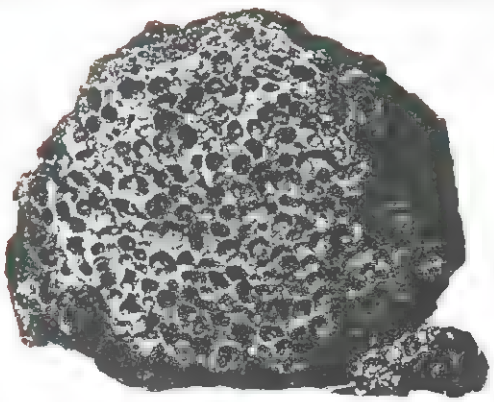
The top layer of the moon is known as *lunar soil,* and it is thought that this has been formed by the continuous bombardment of the moon by cosmic particles in an extremely slow process . . . 3.5 billion years to make a layer less than 20 metres thick in some places!

It is more correctly a *regolith* – a loose blanket-like deposit overlying the solid bedrock – than a soil, which is formed by weathering of rock and activity of organisms, neither of which exist on the moon.

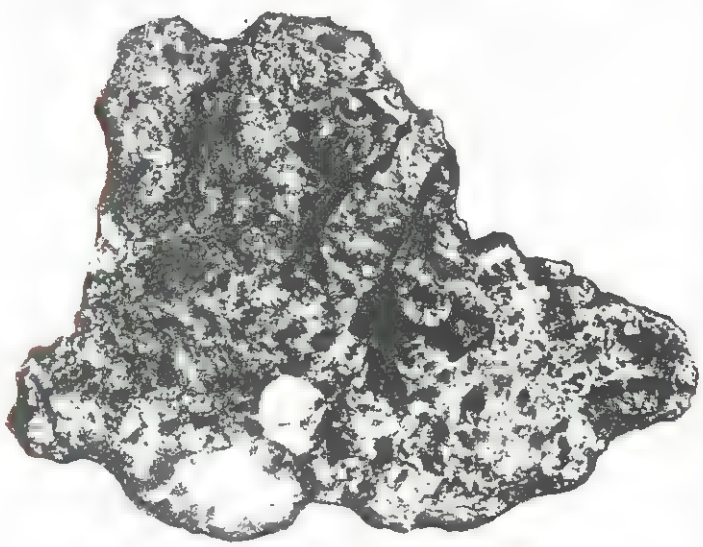
Another description of the lunar soil is to call it a loose breccia. *Breccias* are complicated rocks made up of shattered, crushed and sometimes melted pieces of other lunar rocks, and they are the most common sort of rock amongst the samples.

Although most common in the highland areas, they occurred in each of the landing areas, and indicate that there must have been some violent action on the moon after the lunar rocks had formed, causing the bedrock to be disturbed.

Indications are that most of the breccias were formed by the impacts of small meteorites and larger asteroids, rather than by volcanic eruptions.



Bubbles in a Lunar Lava. This specimen shows the bubbles left when gases escaped from the molten lava, more than three billion years ago.



A large breccia in molten rock. This was probably formed by the impact of a large meteorite.

A scientist examining a large moon rock. The rock is sealed in an airtight cabinet to protect it from the oxygen and water in our atmosphere (both absent on the moon).

Although there were many different rocks in the Apollo samples, they were all igneous rocks that had solidified from a molten material (one turned into liquid by great heat) and it is still not clear quite how this came about.

The rocks from the mare basins – the darker, lowland areas known as maria or seas – were easily identified as *basalt lavas*, similar to those found on the Earth, as a result of volcanic eruptions.

However, the lunar samples showed complete lack of water, and only very small traces of the alkali elements, Sodium and Potassium.

This was also true of the older highland rocks, suggesting that the loss of these volatile materials happened all over the moon, very early in its history.

Indeed, unless they were boiled off *before* the moon was formed, in whatever particles made up the moon, then a temperature of over 2000°C must have existed at some time.

In any case, the moon must have been hot enough somewhere at its interior, to have produced the basalt lava, estimated to have been formed 3.5 billion years ago.

Most of the highland rock samples are between 4 and 4.2 billion years old, although one crystalline rock returned by Apollo 17 has been given a definite age of 4.6 billon years.

Since it is now believed that is the age of our solar system, it seems likely that this rock is part of the original lunar crust, and that the earth the moon and the other bodies of the solar system all formed together at the same time, gradually taking their form out of clouds of gas and dust, known as the solar nebula.

The age of both rocks and soil were measured by the usual method of the radioactive clock, based on known rates of decay of the active 'parent' elements into their 'daughter' elements, and the relative amounts of each present in the sample.

Scientists were puzzled by the first results, as it appeared the lunar soil was older than the bedrock from which supposedly it had been derived!

They decided something was missing from their calculations and set about finding this missing 'magic component'. It was then that they discovered a number of unusual fragments in the lunar soil, containing several times the normal amount of the radioactive parent elements, and with an age of 4.4 to 4.6 billion years.

These small amounts of material were dominating the soil and making it appear older, and it seemed they were also responsible for the 'hot spots' of radioactivity already detected in some areas, for example around Mare Imbrium (Sea of Rains).

As they also contained more potassium (K), rare earth elements (REE) and phosphorous (P) they were named *KREEP* basalts.

The KREEP material also affected thinking on the nature of the interior of the moon. It had seemed, from the effect on orbiting spacecraft, that there are *mascons* (concentrations of extra mass) directly under some of the maria, quite near to the surface, and as old as the maria themselves.

This suggested that the interior of the moon must have been rigid – and therefore cold – for some time, to be able to support these masses.

However the existence of the basalt lavas had meant the sometime existence of molten material, and this was supported by the Apollo 15 Heat Flow Experiment,

which found a great increase in temperature towards the centre of the moon.

The discovery of the 'magic component' meant that it was likely that this experiment had also been affected by the extra heat of the KREEP material, and that perhaps the heat-producing elements were concentrated in the *outer* layer of the moon, leaving the interior no more than 'warm'.

But it is still very much a matter for conjecture, and there may in fact be molten rock still deep at the centre.

The surface meanwhile is still being bombarded, as there is no protective atmosphere like our own.

But the steady bombardment by solar wind, solar flares and cosmic rays is only having the smallest effect on the lunar surface.

It is thought that the first impacts – of meteorites and asteroids – were severe enough to reform a lot of the rocks so re-setting their radioactive clocks – explaining the few really old samples – and that the impacts formed the mare basins, throwing out the KREEP material as they did so.

But that was over 3 billion years ago, and since then the moon seems to have remained unchanged – cold, quiet and utterly devoid of life.

To find out anything more definite about the moon's earliest history, it may be necessary to explore further, perhaps with a landing on an active spot like Aristarchus already the site of several unexplained *transient phenomena,* such as brief colour changes and bright red glows.

And even less is known about the far side of the moon, where communication with the Earth would be impossible, making a landing much more dangerous and difficult.

However, fortunately, there is a point some distance beyond the moon where the gravity fields of the Earth and the moon combine so that a satellite could be placed there, in contact with the Earth, and remain there as the moon orbits.

This would provide a certain amount of new information, and if instruments could then be landed on the far side of the moon, even more could be discovered not only about the moon itself, but also about the vast regions beyond ....

An example of the material called KREEP. This fragment is really only less than a millimetre across.

Cygnus
the swan constellation

Roj Blake and his crew were being transported to Cygnus Alpha, the penal colony in space, when they escaped. The colony was named after one of the most beautiful constellations in the Northern Hemisphere, Cygnus the swan.

The Northern Cross, the best known part of Cygnus, consists of five very bright stars, the brightest of all being Deneb, which marks the upper end of the cross towards the north-east. Deneb is 400 light-years away; it is several thousand times brighter than the sun, and its magnitude is 1.3.

The double star Albireo marks the foot of the cross towards the south-west. A double star is a pair of stars which look like one star to the naked eye or even through a telescope. Double stars are also known as binaries.

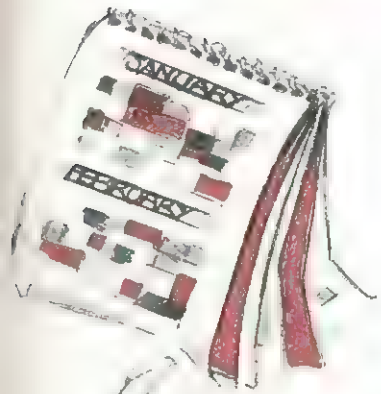
In mythology there are two stories told about how this beautiful constellation first appeared in the sky.

In one myth Phaeton, the son of Phoebus, the Sun god, drove his father's sun chariot through the sky, but he was unable to control the fiery steeds. As a result much of the earth was destroyed and made barren by the sun's heat. Indeed, because Zeus feared that Phaeton would destroy the world he stopped him with a thunderbolt.

But his friend, Cygnus, the son of the sea god Neptune, was so distressed at the fate of Phaeton that Apollo took pity on him and changed Cygnus into a swan and placed him among the heavenly constellations.

In a second myth Jupiter, as the Greeks called Zeus, changed himself into a swan to woo Leda, the wife of Tyndarus. Later twin sons were born to Leda who were named Castor and Pollux. The twins had many adventures as they sailed with Jason in search of the Golden Fleece and later they became a heavenly constellation known as Gemini, while Jupiter, to remind them that he was their father, placed the constellation of Cygnus in the sky also.

Calling all Cals



1. Blake's CAL is CAL——.
2. A date CAL is a CAL————.
3. A disastrous CAL is a CAL————.
4. A counting CAL is a CAL————.
5. An insensitive CAL is CAL————.
6. A serene CAL is CAL—.
7. An animal CAL is a CAL—.
8. A whorl of leaves CAL is the CAL——.
9. A raw or unfledged CAL is CAL———.
10. A gun's CAL is the CAL————.
11. A hand writing CAL is CAL————.
12. A unit of heat CAL is a CAL————.

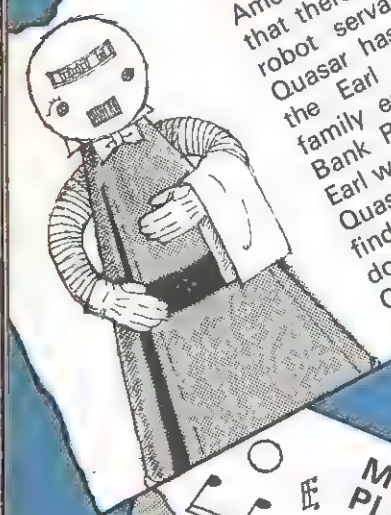
Check your answers on page 60.

Blake's Space Scrapbook

Into his scrapbook Roj Blake pastes cuttings of space, past and present, as well as any strange inventions which have appeared on earth from time to time.

QUASAR, THE ROBOT BUTLER

Quasar is the ingenious invention of Tony Reichelt, an American engineer, who feels that there is a certain place for robot servants in the future. Quasar has acted as butler to the Earl of Bradford, whose family estates include Weston Bank Park, in Shropshire. The Earl was delighted with the way Quasar served tea, and he could find no fault with this first domestic Android even though Quasar weighs around seven-teen stone!



THE BLACK BOX

Every aircraft carries a flight recorder or 'black box' which stores all the information on an aircraft's performance, by using tape machines to record every-thing that happens. After an aircraft crashes, the black box—which is often orange in colour for quick finding—proves in-valuable to tell what happened and why . . . and the information cannot have been tampered with as the black box is securely sealed!

BLUE MOON

Although a blue moon was once believed to be mere fancy, some thirty years ago a blue moon did appear in Alberta, Canada, after a fierce forest fire. As a result of the flames, dust particles came between the source of light and the observers and the light moved and became richer in blue and violet wavelengths instead of yellow or red wave-lengths, and so the moon ap-peared blue to those who saw it.

MUSIC FOR THE PLANETS

In 1980 pictures of the planets are expected to be sent back to earth when Voyager I and II, unmanned spacecraft sent in August three years ago, will be passing the planet Saturn. Gustav Holst, the British composer wrote an orchestral suite called *The Planets*. Little did he realise that Voyager I would carry a very special twelve inch copper disc in an aluminium sleeve, a gramo-phone record of the noises made by animals and birds, some music and various languages. Who knows, perhaps earth's first space record will reach the Space Top Ten!

HSI AND HO

These were the names of the two royal Chinese astronomers who failed to warn the Emperor that a mighty dragon was trying to eat the sun . . . the Chinese chased the sky dragon away, not realising that it was an eclipse of the sun, but the eclipse was recorded in the astronomers' epitaph:

Here lie the bodies of Hsi and Ho,
Whose fate, though sad, was visible:
They were both killed because they didn't spy,
Th' eclipse which was invisible!

SABOTAGE!

"Be as quick as you can, Vila. With a place like this, there's bound to be a guard on patrol."

Blake shivered as he watched Vila's gloved fingers working deftly on the lock. He'd expected it to be cold, but not this cold.

"Almost done," replied Vila. "But I've got to be completely sure that I've by-passed the alarm system." He paused for a moment, rubbing his hands together through the gloves. Then he took off the gloves, to blow warm breath on the skin itself and rub new life into his fingers.

"Brr, I'm freezing!" he said, replacing the gloves. "I hope it's warmer inside."

"I doubt it," said Blake. "After all, the whole idea will be to keep the chemicals cool. It'll probably be like a refrigerator in there."

He shivered again at the thought. Mind you, it was so cold outside that he wondered if they'd need refrigeration. Perhaps that was why they stored the chemicals here in the first place. After all, it must be almost the coldest place on Earth, with Arctic white stretching way into the distance, he presumed toward the North Pole.

Just then there was the sound of footsteps, running. Blake looked up, but Vila didn't – he was at a crucial point, and kept his eyes on the job in hand.

The footsteps were approaching the corner of the building, a matter of yards away. Suddenly a figure burst out into sight and turned towards them, a dark silhouette against the ice.

It was Cally. She was breathless from running. "A guard!" she blurted out. "I don't think he saw me, but Avon – he fell . . ."

"What happened?"

"I don't know. I saw him fall on the ice, as we dodged from the guard's view. I went to help, but he said it was no good, his leg was hurt. Leave me to fend for myself, he said."

Blake frowned. "And is the guard heading this way?"

Cally nodded.

"Well, if he turns up soon, it'll mean we're done for – and if he doesn't, it may well mean Avon's been caught . . ."

They listened, but could hear nothing. Then . . . no, they were imagining it, hearing what they expected to hear. Or were they? A minute later, the faintest sounds became identifiable as slowly crunching footsteps. But was it one pair or two?

There was the click of a lock.

"Done it!" said Vila. "We're in!"

Blake clutched Cally by the arm, as she seemed reluctant to move. "Come on," he said. "When we're safe inside, we'll see if Jenna knows what's going on."

They closed the door firmly behind them, then Blake did as he'd promised and contacted the Liberator.

"Avon?" said Jenna. "It's alright – he's here. I had to bring him up, bad leg and all. He managed to get away before the guard saw him, but not without a twisted ankle, and possibly a broken leg."

"OK," replied Blake. "We'll manage. If there's anything tech-

nical we need to know, we'll get back to you then."

They moved through a wide lobby until they reached a door on the opposite side. A sign on the door said "MAIN STORE". Blake reached out for the handle, but Vila quickly pulled him back.

"Careful!" he said. "I think it's rigged. Either an alarm or some sort of electric shock. Look!"

He was pointing at a small box beside the door. He went over to it, and fiddled around until he found a way in. Then he began to examine the intricate miniature circuitry.

"Can you manage it yourself?" Cally asked. "Or do you need some help from Avon?"

Vila considered. "No, I think it's quite simple – just a question of finding the point of disconnection. A switch perhaps. Ah yes, here we are."

He made the necessary adjustment.

"That's it," he said. "But I think I'd better be the one to try it, just in case. My gloves are insulated..."

He turned the handle and pushed. Nothing happened. He tried again, but there was still nothing.

"Locked?" said Blake.

Vila nodded.

Blake looked perplexed. "But there's no keyhole. So how does it work? How do we get in?"

Vila shrugged his shoulders.

"Let's try one of these other doors instead," suggested Cally, indicating three doorways along the left-hand side of the lobby. One was labelled WASH-ROOM, another DETOXIFICATION ROOM; the third was blank.

"How about this one?" said Blake, pointing to the unlabelled room.

"I reckon we should take one door each," said Vila.

"Alright," agreed Blake, "everyone back here in two minutes."

Neither Cally nor Vila discovered anything out of the ordinary. The rooms seemed to fit the descriptions, being eminently suitable for the rigorous washing and detoxifying procedures needed in this sort of building.

But Blake was mystified. "It seems this unlabelled room isn't used any more. But there are signs of it once having been a reception room. There's a small panel of controls, with buttons and switches, like an old telephone switchboard, but nothing else in the room at all. Oh, except this..."

He showed them a piece of paper which gave a detailed plan of the building. It was very old, and was dated 1994 of the old calendar. The room where he had found it wasn't marked as anything, while others were more or less what one would expect: SUBSTORE, PACKING ROOM, SUPERINTENDENT, FREEZER ROOM, REFRIGERATION ROOM, and so on....

So, with all this to explore, was one locked door going to hold them back? And of course they had come here with a job to be done.

They contacted Avon to see if he had any ideas about the circuitry in the box.

"Well, in theory it's simple enough," he said. "You'll have to return that switch to its original position and find another switch that triggers the alarm rather than the lock."

Vila examined the box again.

"It's no use," he replied at last.

"I can't find anything."

"Mmm, I thought as much. It's probably invisible and worked by an electronic beam."

"We can't get in, then?" said Blake.

"Well . . . there is another way." He paused.

"Well? Go on!"

"I don't know. It'd be tricky, even for me."

"Well, can you make it, with your leg?"

"No, he cannot!" interrupted Jenna. "No way!"

"In that case, we'll have to manage without," said Blake. "What do we do?"

"You'll have to feed in a resistance that's strong enough to cut off the alarm without affecting the beam. But it's not as simple as it sounds. It'll have to be in exactly the right place and of just the right strength, or else you'll either not effect the cut-off properly, or else cut out the other switch as well, so that the door won't open at all."

"But *how* do we do it?" asked Cally.

"You'll need a special tool. I'll send it down with Jenna, and she'll explain."

Minutes later, Jenna materialised in the lobby. She was holding a blue box with an attachment a bit like a half-open, blunt pair of scissor blades. There was an illuminated dial and two control knobs on the box itself.

Jenna showed the others how one of the knobs controlled the distance between the 'blades', while the other affected the strength of resistance. This was shown by a reading on the dial.

She handed the Resistance Bracket to Vila, who carefully followed Avon's instructions, step by step, until at last the operation was complete.

"Just one final check," said Avon. "You don't want to short out the whole circuit, or there'll be no way in."

Finally he was satisfied, and Vila told Blake he could go ahead. This time, on turning the handle, the door responded to the slightest push, and Blake gingerly opened it and looked in.

The large room was more or less as he'd expected. There was row upon row of bottles along one side, and larger containers both down the other side and along the middle.

They entered the store room, and shut the door behind them. Now where were the chemicals they were after? They had no idea whether the substances in this store were the made-up chemicals the Federation used, or just the basic ingredients which had to be processed elsewhere. They would have to find out what the chemicals were, or else take samples of all of them.

Blake examined the labels, but they were no help. The bottles were identified merely by a combination of letters and numbers; the containers by a simple pattern resembling a computer print-out.

By now Jenna had returned to the Liberator, but Cally and Vila followed Blake through the store to the room marked on the plan as the Substore.

Perhaps we'll have more luck there, thought Blake.

The door was open wide, but they remained on the threshold looking in. This time there were no chemicals – instead there was a work-bench at each side of the small room. There was nothing on

them apart from racks of test-tubes, looking as if they'd not been recently used. On hooks along one wall hung a mixture of overalls and what looked like an updated version of the gas-mask. In one corner of the room stood a centrifuge; in another was a small cupboard.

Blake shivered. With all the activity he'd almost forgotten the cold until now. Although actually it did seem colder here, as if they were being met by a colder front of air.

Cally interrupted his thoughts. "Look at this on the door!" she said, pointing at some writing they had missed. "EXPERIMENTAL REACTIONS," she read, "KEEP OUT. AUTHORISED PERSONNEL ONLY."

Blake nodded. "Yes, it seems they once did more than just store the chemicals in this place – despite what it says here."

As he indicated the word SUB-STORE on the plan, his eye caught sight of something else.

"That's interesting," he said. "Can you see a door opposite this one? According to this plan, there should be an entrance over there – into the freezer room."

They crossed over between the benches, to get a better look. But there was definitely no door, simply a bare, blank wall.

"Oh well, there must have been structural alterations since 1994. They probably decided they didn't need a freezer room after all, and I can see why!" Blake shivered again. "Come on, let's try and get some samples from the store."

He picked up a rack of test-tubes and went back into the store, and Cally followed. But as Vila was about to follow her, he stopped as his eye fell on the cupboard in the corner.

He went over and tried the handle, and it turned smoothly at his touch. He eased the doors open, with the skill of a master thief, wondering, again like those of the quick-fingered trade, whether there would be anything worth his while.

But the cupboard was completely bare.

He felt around inside to make absolutely sure, then turned away. But as he did, he caught a slight movement out of the corner of his eye. A secret sliding doorway was opening in the wall!

A cold blast of air shot through the widening crack. Was this the Freezer Room after all? And if so, why was it protected by such an unorthodox entranceway?

As he moved into the room, Vila realised that when the door was closed the whole room would work like a giant fridge, but that there were also some separate compartments equivalent to the freezer sections where you might put meat to keep it fresh.

He examined the lever-like handle on the first compartment he came to, and it wasn't difficult to fathom how it worked. Inside, there were many shelf-like racks of chemicals in small, stoppered bottles, labelled this time with one letter: X, Y or Z. Perhaps these might be the three vital ingredients?

He'd better call Blake and Cally. But wait . . . what was this long box-like affair in the corner? It looked like a coffin, very wide, and instead of a white cloth, a shroud of crystalline ice.

Vila began to scrape away around the edge of the lid, using a flat piece of metal which had been lying around on the floor. The metal itself was covered with a thin layer of ice which made it slip through his fingers.

He tried to get a firmer hold and, using the palm of his hand, he pushed with a chiselling action through the ring made by his other gloved fingers. But again the metal slithered and slid from one side to another, and only ended up chipping away the tiniest pieces of ice.

Finally he tossed the implement away and took out his gun. The beam tore into the ice, leaving a melted trickling path. Vila fired again and again, until the last particles of ice broke away from the rim, and fell to the floor.

He lifted the lid. It came up slowly, with a rather chilling creak, as if it didn't like being disturbed after all that time. Then suddenly it fell back with a bang.

Vila's face was white. The lid hadn't just slipped – it had fallen as he threw up his arms in astonishment.

Just then, Blake appeared in the doorway.

"How did you get in here . . . and what on earth's the matter?" he added, seeing Vila's mouth hanging open. "Seen a ghost?"

Vila didn't answer. He just pointed to the ice-covered box. Then he slowly pulled the lid back up, and all three of them stood looking in.

Blake broke the silence.

"I wonder how long *they've* been there," he said. "And who they *are* for that matter."

They were looking down at two frozen bodies, huddled together, face up and side by side.

"Do we just leave them there?" asked Vila.

"I think we may be able to unfreeze them," said Cally. "Look here!" And she indicated a small control set into the box. A light was lit up against the word 'FREEZE'. It only needed a small adjustment to turn that off and light up instead the bulb marked 'THAW'.

That done, they closed the lid and waited.

The process took a long time, and though they would have liked to peek, it said quite clearly that the lid had to remain down until the operation was over.

At last the light went out, and the green all-clear light came on. The lid could now be opened. But they didn't rush forward and hurl it open – instead they stood and listened for some sign of life and, when nothing happened, they wondered if the figures were alive after all.

Blake slowly eased open the lid. The water had all been drained away immediately by a strong pump, and the air inside was warm. Now there was movement, as the inhabitants of the box shielded their eyes against the light, and huddled together even closer against the cold.

But slowly they became more accustomed to this intrusion into their cocoon by the forces of the outside world and as Blake pulled the lid fully open, they struggled to make out who he was and where they were.

It was like being reborn, except there was still the memory of before. They recognised the place, although it seemed somehow different. They did not recognise the face peering in at them.

They began to remember more clearly. This was the Arctic Research Station, a cover for American scientists, like themselves, working on important chemical reactions in the search for more and more potent weapons in the latest round of chemical warfare.

It was 1994 – or at least it had been 1994.

One of them remembered he was called Mitchell, but known as XP3. XP for Experimental Department, of course. He remembered the other as XP7, but couldn't remember his name. In fact, he didn't think the other had a name.

The face above them began to ask them questions. Why were they here? Were they for or against the Federation? How long had they been there? Did they know all the chemicals and what they were used for?

Two more faces appeared. It was like being a fish in a goldfish bowl, the two scientists felt, being stared at like that. And the questions merely confused them, sending their heads swimming dazedly in all directions.

But then, slowly and tentatively, although they didn't really remember they had voices, their answers, as they formed, came out as thoughts aloud: "We have been here since 1990 and it is now 1994, that's four years. Who or what is the Federation, we do not know..."

"And of course we know about chemicals. We are chemists."

"So you *do* know what they're for?" asked Blake.

"Yes, we know. They are for war."

"At least things were more equal then, before the New Calendar," said Blake. "Before the Federation became what they are now."

He told them all about the prisons, the chemicals and his and his companions' escape. About their continuing battle with the Federation, their plan to sabotage the store, and of what they had found. Then he told them how important it was that they should help.

"You could identify the chemicals for us, and tell us how they work. You could even help us sabotage the whole place."

"But how can we believe what you say?" said the one called Mitchell. "That you are who you say you are? That you are not anti-American agents working on the inside, and that it isn't still 1994. Show us something!"

"Alright," said Blake, holding out his wrist. "See this? I can use it to talk to someone on our spaceship, the Liberator. I can ask Jenna, our pilot, to bring us down a history of the universe in this New Calendar. We found it in the ship when we borrowed it from the Federation for our escape."

The two men seemed happy enough with this, so Blake told Jenna to teleport down and what she needed to bring. The chemists looked genuinely impressed as she materialised right in front of their eyes. And they couldn't argue about the Calendar, either – there it all was in black and white.

By the time Cally and Vila had told them a few stories about the Federation and the many rebellions that died a death, they were all too ready to help.

Meanwhile their memories had been piecing together, and by now their chemical know-how was back up to scratch. They tested the chemicals X, Y and Z thoroughly, and had soon identified the reaction that led to the widely-used, mind-controlling drug, the Federation's most powerful weapon.

"What now?" said Blake.

Mitchell suggested rendering each chemical inactive by treatment with another, but XP7 didn't agree.

"No, no!" he exclaimed. "There's a much better way. We can combine them all with this one," – he pointed to a colourless liquid marked simply Y5 – "and end up with a totally harmless substance, which they could do nothing with. And the reaction is irreversible!"

"Sounds ideal," said Cally. "Well – what do you think, Blake?"

"What are we waiting for, that's what I'm thinking," he replied.

The reaction was soon in full swing in the room with the test tubes, overalls and 'gas-masks'. But suddenly Mitchell began coughing. Then so did XP7 – and Vila, who was watching the chemist taking the new mixture from the centrifuge with great curiosity.

They all began to feel a certain tightness in their chests.

"You forgot the by-product!" cried Mitchell, suddenly. "It must be a poisonous gas, at least in the cold. Stop the reaction, you fool!"

But XP7 had seen the masks hanging against the wall. He dashed over and grabbed one, fastened it hurriedly, then threw the others masks as well.

"Now let's get it under control," he said. "It shouldn't take long."

He began to try to stop the reaction, although of course there was no way of actually reversing it.

Suddenly a bell rang. It went on ringing, like a fire or burglar alarm. Blake decided it must have been set off by an accumulation of the fumes, but he was more concerned with the possibility of their being detected.

"Quick!" he urged. "It won't take any guards long to locate us now."

XP7 was doing the best he could and Mitchell was helping. But still they were having trouble in stopping it. Although there were now less fumes being produced, they were still being given off.

Cally swung round. She had heard a noise in the store. As she went to investigate, there was a blast of fire, which missed her by inches. She ran back into the room, but as the guard came nearer he began coughing and had to back off.

"I bet he'll be back, though, with more of them," said Vila. "And masks."

He's right, thought Blake, we're going to have to be ready to teleport up. In sabotaging the place, they had also made it a most dangerous place to be.

The question was: could they just leave the two chemists behind – especially after all their help?

"Almost done!" said Mitchell. "Another couple of minutes, that's all."

"Jenna – get back to the ship, and prepare for us to follow," said Blake. "Cally – you go with her, and prepare to return with extra bracelets for these two. OK?"

But they had hardly gone when Vila reported more guards. They fired once, then again. Then there was silence. There was no coughing, which meant they must have got some protection this time. They were probably advancing slowly through the store towards them.

"How long?" said Blake.

"Just about there..." said XP7. "Yes, that's..." But his voice faded out as he collapsed, dropping to the floor.

Mitchell bent down to see what was wrong.

"Oh, no," he said, examining the mask. "He's had a leak, a slow leak. There's no hope."

He stood up. "But at least he's done the job."

There was another shot, which ricocheted off the wall and just missed Blake. "Well, we can't hang around," he said, turning to Mitchell, "but we can probably manage to get another bracelet. Do you want to come with us?"

"No," replied the chemist. "Just leave me. I'm from another time. I'll probably age quickly now I'm out of the ice, too. No, put me back in the freezer, that's all I ask."

"Very well," agreed Blake.

They rushed into the freezer room as Vila held the guards at bay with his own weapon.

There wasn't much time. Blake shut the lid on top of Mitchell, and switched over to 'FREEZE'. Then he got straight onto Jenna: "Right, just the two of us. Quickly now!"

And, as he and Vila dematerialised, a ray of fire passed right through the spot where Vila had been standing in the doorway.

Back on the Liberator, it was lovely and warm. Avon hadn't actually broken his leg – only strained it – and the sabotage had been successful. Yes, Blake could think of plenty to smile about.

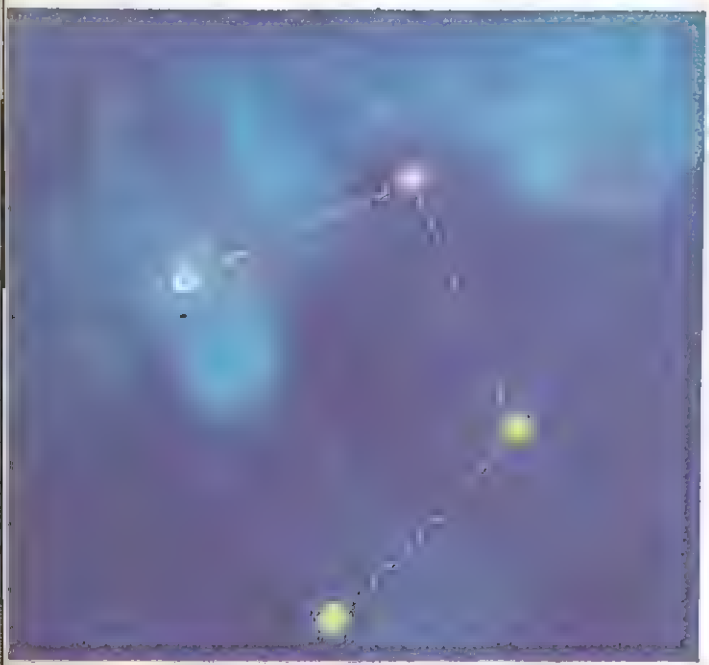
And for that, he really had two people to thank: a man in an icebox, and a dead man, with no name.

A Numbered Spacecraft

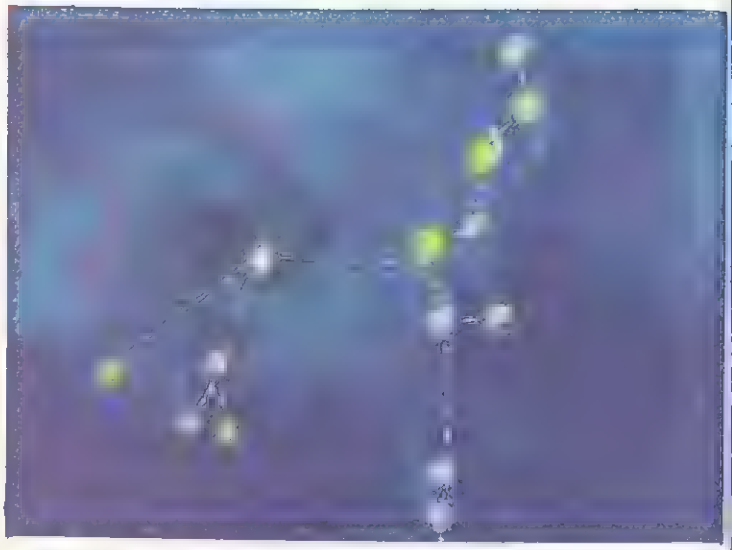
Fill in the answers to the clues in the numbered squares to get the name of a famous spacecraft.

1	2	3	4	5	6	7	8	9

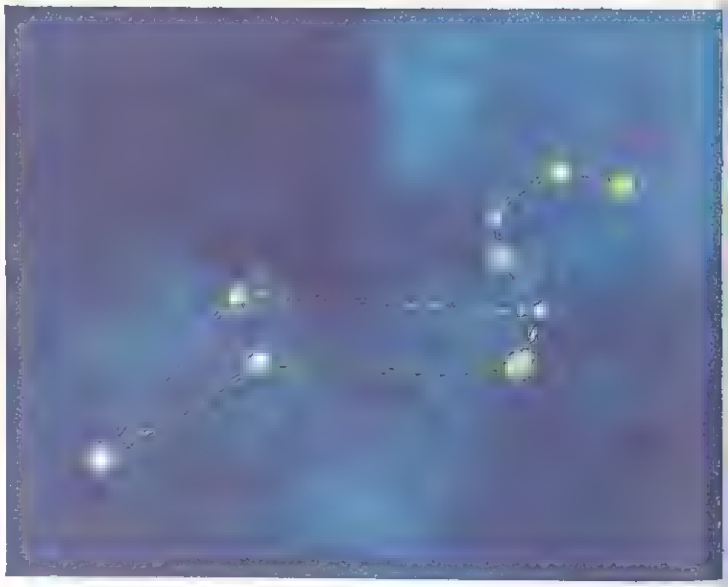
Ursa Major is the Great 3, 4, 6, 5.



1, 4, 8 is the lion constellation.



1, 2, 3, 5, 6 is the scales constellation.



A 3, 8, 6, 7 sometimes has an 8, 6, 9.

Check your answers on page 60

space logbook

Zen the computer accumulates Space data in case the Liberator is ever in trouble and needs information . . . here are some excerpts.

There are at least 3,000,000,000 stars in our galaxy. Its size is so great that for the sun's light to reach the earth it takes eight minutes, but for the light to reach the centre of the galaxy from the sun it takes 27,000 years!

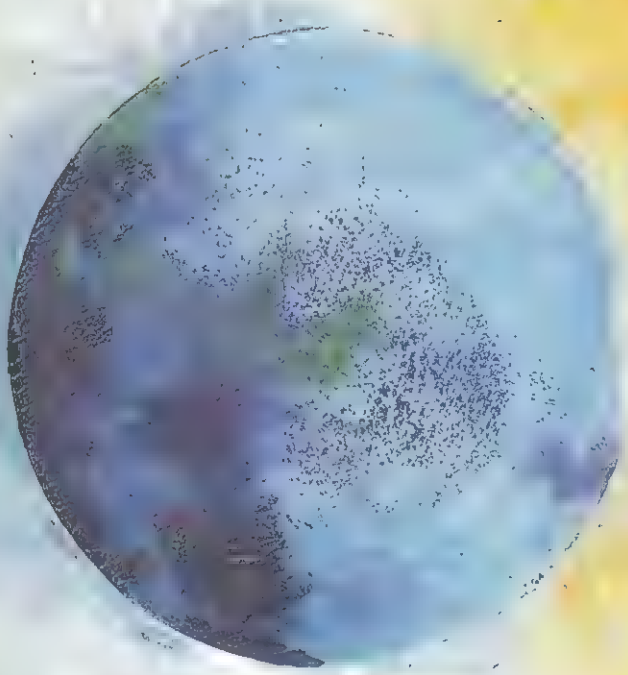
Comets are bright balls of solid matter and gases which burn fiercely. They sometimes have long tails of fine particles of gas and matter. The three parts of a comet are the head or nucleus, the 'coma', a cloud of growing matter surrounding the head, and the tail which can be 5,000,000 to 100,000,000 miles long. Comets travel around the sun. Halley's Comet is a very famous comet which appears only once every 75 years around Earth..

Meteors are parts of stars which fall to Earth from Space. They can be the size of a pinhead or can weigh hundreds of kilograms. Most fall to the Earth and sink into the oceans. As meteors enter the Earth's atmosphere the friction caused by rubbing against the particles of air induces the fiery train of light which is part of the phenomena.

It takes the planet Venus 225 days to revolve around the sun and 243 days to rotate on its own axis. This means that a Venus day is longer than a Venus year..Venus is without life, it has a barren landscape and the temperature is much too hot for human life to survive there.

Planet of the Ashen Light

This was the name given to the rather mysterious planet of Venus by an eighteenth-century German astrologer. The dark side of Venus sometimes seems to be glowing with a strange light: the same astrologer suggested that the inhabitants of Venus had lit a bonfire!



At first it was believed that Venus was a little similar to Earth, with a pleasant climate, temperate oceans and fertile soil. But more modern space probes by both Russia and America have determined that Venus consists of a dark, barren landscape where no life exists and there is no water. Without a magnetic field, and with temperatures unbearably hot, it is unlikely that humankind will colonise the planet in the near future.

It will take a great deal of planning and sophisticated technology to turn the planet into a hospitable habitat for us . . . but as Earth's resources dwindle and decline, and space exploration expands, perhaps sooner than we know there will be human life existing on the 'planet of the ashen light'.

A TASK FOR BONDOR

"What do you think of our chances, Blake?" said Cally, as the Liberator accelerated away from the green glow of the planet Mamon.

The crew of the ship, under Roj Blake, had attempted to help the failing resistance movement on the planet, but after an abortive attack on a Federation communication block, Blake had decided that unless he could provide them with a permanent leader the resistance fighters would soon be completely wiped out by the superior Federation forces.

At Cally's suggestion, Blake had agreed to try and persuade Grai Bondor, a legendary resistance fighter who had until recently been the scourge of the Federation, to help the people of Mamon. Bondor had suddenly opted out of the fight for freedom and was now living the life of a hermit on Caliphor II, refusing to see anyone. Rumour had it that few people ever returned from Caliphor, and consequently the rest of the Liberator's crew were wary of Blake's plan.

"To be quite honest with you, I'm not sure," said Blake, after thinking about Cally's question for a moment. "Apparently Bondor has turned against violence of any kind, and he is protected by a host of serviles who make sure that he doesn't have any unwelcome visitors."

"Just who, or what, are these so-called serviles?" asked Vila.

"According to people who have made the trip to Caliphor II and survived, they are wraith-like beings with an unfortunate tendency to cling to intruders if they regard them as a threat, reducing them eventually to wraiths like themselves."

"They sound delightful," said Avon. "Just what do they consider 'a threat'?"

Blake hesitated. "They don't like loud noises, aggressive behaviour . . . or weapons," he said.

Avon snorted scornfully. "Oh, I see," he said. "We just tiptoe down there, all meek and mild, without any means of defence, and hope they'll like us enough to leave us alone. Wonderful."

"I think we should risk it," said Cally, who passionately supported the Mamon cause.

"And I think you're all mad," said Vila. "Even if we escape the clutches of the serviles, the chances are that Bondor won't come with us anyway."

"In other words, we leave Mamon to its fate, and condemn those people to the sort of life we left behind on Earth," said Blake sharply. "Have you forgotten what it was like for us? Doesn't freedom mean anything to you?"

Vila looked uncomfortable, but Avon was made of sterner stuff. "Very plausible, Blake, but I still think we'd be wasting our time. Count me out."

"Very well," sighed Blake. "That leaves Cally and Vila. You, Jenna, will have to stay and pilot the ship. Before we go, is there anything else

we should know about Caliphor II. Zen?"

"CALIPHOR II. INHABITED BY SERVILES AND, MORE RECENTLY, BY GRAI BONDOR. PLANET RICH IN MINERALS, BUT UNSTABLE AND THEREFORE IMPOSSIBLE TO MINE. EARTHQUAKES AND VOLCANOES FREQUENT, RELEASING POCKETS OF GAS WHICH PRODUCE HALLUCINATIONS WHEN INHALED."

"Right, I think that's all we –" Blake stopped as Avon spoke to Zen.

"Just a minute. What kind of minerals are found on Caliphor II?"

"SILVER, GOLD, AND SMALL AMOUNTS OF PLATINUM HAVE BEEN THROWN UP DURING EARTHQUAKES."

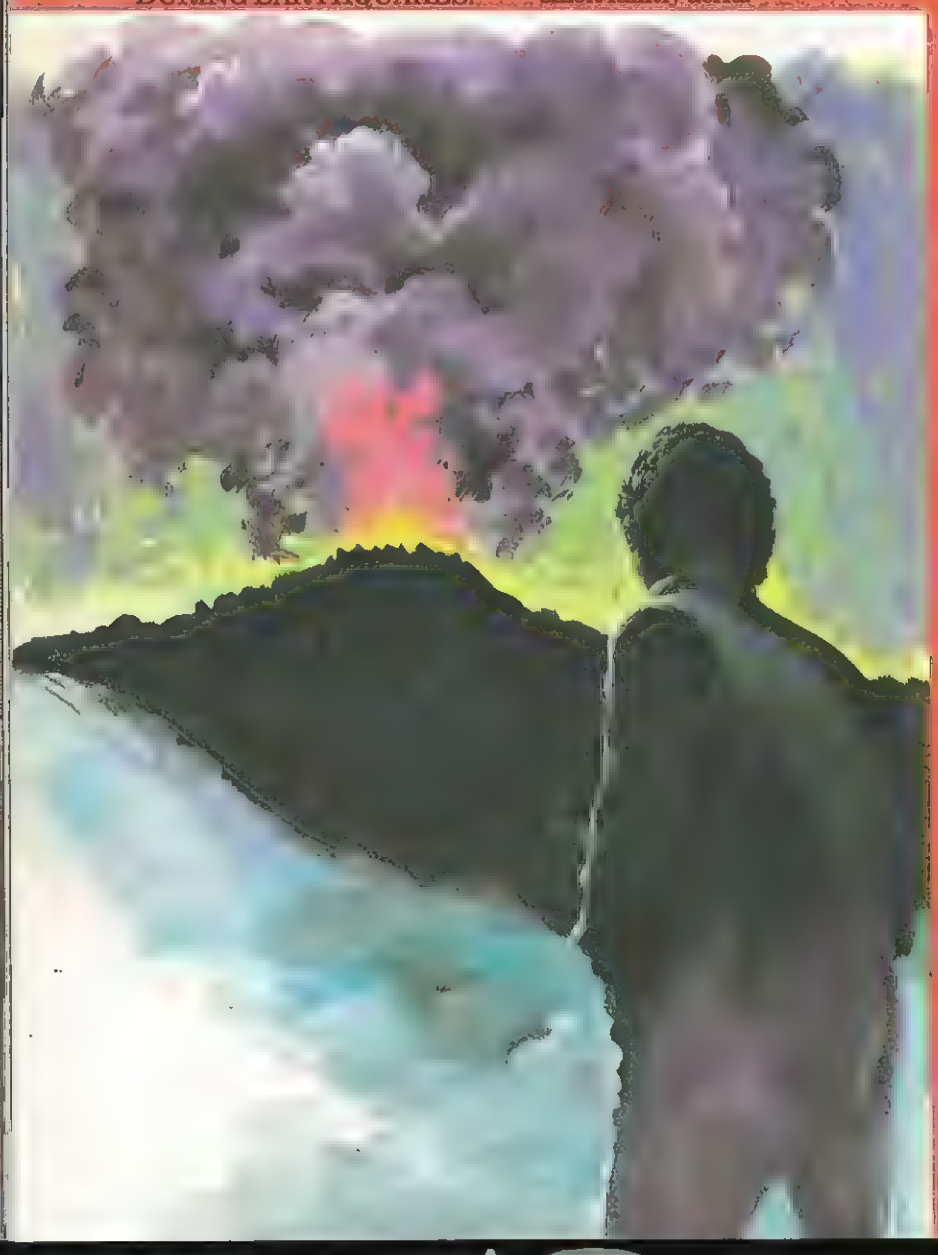
There was a gleam of amusement in Blake's eyes. "Does this mean you'll be coming with us after all?" he asked.

"Only as far as the surface," said Avon. "I intend to do a little prospecting while you go on your fool's errand."

The party clipped on their transporter bracelets and Jenna set the controls in readiness.

"I hope you've all left your weapons behind," said Blake, as she pushed the levers.

Seconds later they materialised on the surface of Caliphor II. A blue-grey mist swirled round their feet and as they walked they felt vague tremors in the earth. In the distance a volcano belched out clouds of purple smoke and the air smelt faintly acrid.



"My way takes me over there," said Avon, pointing to the fiery mountain. "Good luck with your deputation."

He set off towards the volcano, leaving Blake, Cally and Vila to find Grai Bondor's hideout. "It should be round here somewhere, if our calculations were correct," said Blake.

"What's that over there?" said Cally, suddenly.

The landscape seemed to have gone out of focus, and the air was filled with a soft, mewing sound.

"It's the serviles," whispered Blake. "Keep your voices down and don't make any sudden movements. We must convince them that we are peaceful."

The outlines of the three figures blurred as the wraiths drifted round them, mewing softly. It was like being swathed in icy gossamer, and Cally had to resist an impulse to brush them away like a clinging spider's web.

At last the serviles drifted away, satisfied that the intruders meant no harm. "Ugh!" said Cally, shuddering. "Nasty, creepy things."

"Shh!" whispered Vila, looking anxiously over his shoulder. "They'll hear you."

They walked on, aware that the vibrations under their feet were getting stronger. "Look out for any sudden cracks in the ground," warned Blake.

But the strange mist hid their feet and swirled across the surface, making it difficult to see the ground.

Suddenly there was an earsplitting crash, and the earth beside them opened up in a great, jagged tear, releasing a cloud of green gas. Cally and Blake saw the danger in time but Vila, who was nearest the crack, couldn't move fast enough to avoid the gas. As he inhaled, he felt his body slowing down, as if he was moving in slow motion, and his two companions suddenly seemed a long, long way away....

Brightly-coloured shapes twisted and spun before his eyes, but when he reached out to touch them they exploded, leaving black insects

that buzzed round his head and clung to his face. He tried to brush them away, but they grew bigger and bigger, dragging him down towards the ground. He could see a big hole in front of him, stretching down towards a fiery core. If he could just jump down there he could get rid of these awful creatures and be free....

Blake and Cally watched in horror as Vila walked towards the gaping crack in the earth's surface. "Blake, stop him!" hissed Cally.

Taking a deep breath, Blake plunged into the green cloud and grabbed Vila's arm, just as he was about to walk over the edge of the chasm.

"No, no!" screamed Vila, as Blake dragged him to safety. "I must go back or I will never be free of them!"

Too late, Blake remembered the serviles and their hatred of loud noises. Would they hear Vila's screams? He clamped a hand over the thief's mouth and carried him, still struggling, to Cally.

However, the effects of the gas were already wearing off, and Vila's eyes slowly lost their look of blind panic. "What happened?" he said, rubbing his face where Blake had grabbed him.

Before Blake could reply, the serviles reappeared, clustering round Vila until he looked like a man under water. He shouted for help but the wraiths mewed more loudly, drowning his cries.

"What's going on here?" said a deep, husky voice. It belonged to a tall, thick-set man with curly red hair and the scars of many battles on his freckled skin.

"You must be Grai Bondor," said Blake, extending his hand. "We came here to see you, but my friend here had the misfortune to breathe in some of that green gas and as a result of his screams the serviles have surrounded him."

Bondor ignored Blake's hand. "Maybe you should take the hint and leave," he said bluntly. "There won't be much left of your friend if you don't go soon."

"But how can we free him?" said Cally.

"Oh, that's easy enough," said Bondor. "Give me your assurance that you will leave me in peace and I'll send the serviles away."

Blake looked at Vila. Already the little man's skin had a transparent look, and his eyes pleaded silently. Blake knew that he should accept the man's offer, but he had to make one last try.

"I'm afraid I can't do that," he said, ignoring the look of horrified disbelief on Vila's face. "We wouldn't have come here if it hadn't been very important, and if you have any faith left in human

nature you will free my friend and listen to me. My name is Roj Blake, by the way."

Vila closed his eyes in despair, convinced that his end was very near.

"Roj Blake, eh?" Bondor sounded impressed in spite of himself. "I've heard a lot about you and your fight against the Federation. Very well, I'll free your friend and see what you have to say. As a fellow fighter I owe you that much."

He took a small flute from his pocket and began to play a soft, haunting tune. Immediately the serviles drifted away from Vila, circling above his head in time to the music.

"Don't do me too many favours," said Vila bitterly, rubbing his skin in an effort to restore its colour.

Bondor put the flute away. "I think you'd better tell me why you're here," he said.

Blake told him about the resistance movement on Mamon. How young men and women were throwing their lives away in brave but foolhardy attacks against the Federation. How they were doomed to failure and death without a leader to channel their efforts.

Grai Bondor simply shrugged. "When I came here it was to leave that kind of violence behind," he said. "I have had enough fighting. I think I deserve a rest, and I'm going to take it, right here."

"It sounds more like running away to me," said Cally fiercely. "Those people have no chance at all on their own, but with your experience they could really damage the Federation's hold on Mamon."

Bondor's eyes flashed. "I have done more than my share of fighting the Federation," he said angrily. "More than you could possibly know . . . and now I'm bowing out." He turned to face Blake. "Why don't *you* do the job yourself?"

"I have commitments all over the galaxy," said Blake shortly, "and can't simply neglect all the rest for one planet."

The two men stared at each other, each determined not to give in to the other.

Meanwhile, Avon had also been subjected to the attentions of the serviles. They closed round him, filling the air with their soft cries, and he felt an uncomfortable chill in his bones as they clung to him.

He tried to lift his arm to push them away but found that he couldn't. It was as if some great weight was holding him down.

But at last he was free. The serviles drifted away and he shivered as his body warmed up again. The ground was rumbling ominously beneath him, but his mind was on more important things and he ignored the vibrations. Every so often he had to jump across cracks where the earth had shifted, and each time he would peer through the mist that swirled

round his feet to see if any precious metals had been thrown up.

For a time he found nothing, but finally, at the edge of a deep chasm, he noticed a piece of rock with thick veins of gleaming ore running through it. It looked like platinum, and Avon smiled as he slipped it into a bag attached to his belt.

Eagerly he explored the edge of the chasm, finding several more lumps of ore, including a piece so large that he had to carry it under his arm.

Well satisfied, Avon crossed the chasm and set off in search of more of the ore-rich rock. He barely noticed that the volcano in the distance was now sending up sheets of flame, or that, beneath the mist, the ground was laced with a network of fine cracks that creaked and groaned.

Suddenly a sound cut through the rumbling and Avon stopped in his tracks. A spaceship was coming in to land, and as the orange glow of the retro rockets lit up the land, he looked round hurriedly for somewhere to hide. The ship had the markings of the Federation.

He ran for the shelter of a clump of bushes and watched between the leaves as half a dozen uniformed men left the ship. They were all fully armed, and carried small black boxes.

"The serviles won't like that!" thought Avon, smiling to himself. It would be good to see the Federation men in the grip of the wraiths.

As he expected, the serviles crowded round the six men, but instead of submitting, they each fiddled with the black boxes, producing a shrill, ear-piercing whistle. Immediately the serviles recoiled, and as the volume increased a strange thing happened. The transparent bodies began to glow, as if consumed with an inner fire, until they were so bright that Avon could hardly bear to watch. As the sound continued, they writhed as if in agony and then, without warning, they exploded.

More soldiers left the ship and when they were all assembled, each with one of the black boxes, their captain called them to attention.

"Listen, men," he barked, "somewhere in this area Grai Bondor is hiding. As you know, this planet will shortly blast itself to pieces, and it is imperative that we find Bondor before that happens. He has a lot of information that will be very useful to the High Command, so if he puts up a struggle make sure that you only wound him. We want him alive."

Avon looked at the big lump of platinum ore, and with a sigh he put it on the ground. He would have to move fast if he was to warn Blake in time, and the precious ore would only hamper his movements.

He set off at a run, back the way he had come, but as he left the shelter of the bushes one of the Federation soldiers spotted him and raised the alarm. Hearing the

shouts, Avon began to zig-zag across the ground in the hope of avoiding their fire, and he didn't dare look back to see if the soldiers were gaining on him.

Then, suddenly, the earth shifted beneath his feet, sending him crashing to the ground. Behind him yet another gash had appeared in the earth, catching the front soldiers unawares. The first two plunged down into the fiery chasm, and the rest were caught in confusion as they tried to avoid the same fate.

At this point Avon was tempted to cut his losses and transport back to the Liberator alone. But some scrap of loyalty kept him running, and at last he reached the place where he had left the others.

Blake was on the point of giving up when Avon finally reached them. He had tried every argument he could think of to persuade the resistance man to come back with them, but it was no use. He had failed.

"Avon! What the devil –?" said Blake, as the computer expert appeared.

"The Federation!" gasped Avon. "They are here and they're looking for Bondor." He paused to get his breath back. "They say the planet is going to blow up and they're on their way here now."

"The serviles will soon see them," said Bondor.

But Avon shook his head. "They also have machines that destroy the serviles," he said. "They won't be far behind me, so we'd better get a move on."

Blake took a transporter bracelet out of his jacket and held it out to Bondor. For a moment the resistance fighter stared at it, and then he sighed. "Okay, you win," he said with a wry smile, and clipped on the bracelet.

With a gasp of relief Cally gave him a quick hug, and Blake called the Liberator. "Ready when you are, Jenna," he said. "There'll be one more for dinner tonight."

All Set For Take Off

As Jenna guides the Liberator into Space, the others assume their special positions ready for take-off. This precaution is to guide against something called the 'g factor'. What is it?

The normal pull of gravity on earth is a force scientists call 'one gravity' or '1 g'. When the Liberator takes off it builds up speed to reach 18,000 miles an hour to go into orbit. There is an increase in the 'g factor': the earth is pulling the spaceship down. As the 'g force' increases, the crew's bodies grow heavier in accordance. Under a 3g force the Seven's bodies would weigh three times as much as normal.

Excessive 'g force' can cause black outs, since the blood is unable to circulate. But the wearing of special outfits, and using certain positions on take-off, can alleviate the effects. So the Liberator crew lie down for take-off, to relieve some of the pressure on their bodies.

Astronauts are specially trained to expect and understand what happens to them on take-off. They are trained in a CENTRIFUGE, a large machine with a rotating arm to which a mock-up space cabin is attached. As the arm whirls round faster and faster, the astronaut inside is subjected to greater amounts of g pressure. Being weightless, another experience Blake's Seven have had in space, is called a 'zero g-force'.

The Constellations

Capricorn, the Sea-Goat, is a faint constellation in the Southern Hemisphere. The Ancient Greeks identified the *Capricornus* constellation with Pan, who played on musical pipes.

Pisces, the Fishes, is a constellation in the Northern Hemisphere, and the twelfth sign of the zodiac. The sun passes through Pisces between the middle of March and the middle of April. Pisces is a little south of the constellation *Pegasus.*

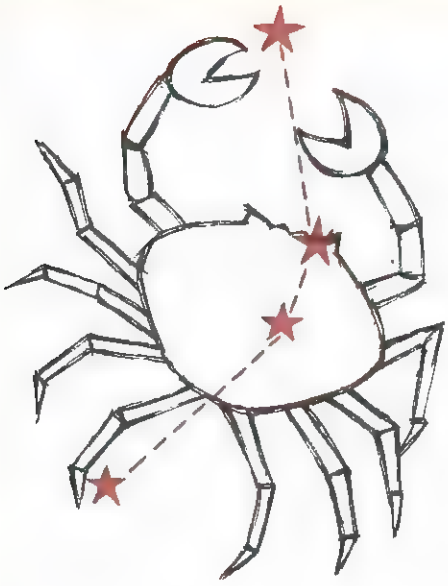
Taurus, the Bull, is the second zodiacal constellation. A v-shaped star cluster, the *Hyades,* forms the bull's face. The reddish star *Aldebaran* forms the right eye. Two other stars form the tips of the horns. The *Pleiades,* the most magnificent star cluster of all, forms the shoulder. Taurus also includes the *Crab Nebula,* a cloud of luminous gas.

In Greek mythology Zeus is supposed to have turned into a white bull to be near Europa. She climbed on the bull's back for a ride, and Zeus carried her across the sea. He revealed himself on the island of Crete and they were married there.

Aquarius, the Water-Carrier, is the eleventh constellation of the zodiac. The symbol for Aquarius comes from the Egyptian hieroglyph for running water.

Aries, the Ram, is the first constellation of the zodiac; its symbol represents both the horns of the ram and the nose and eyebrows of a human face. This is traditionally supposed to be the most powerful sign in the zodiac.

Gemini, the Twins, is the third sign of the zodiac, and a constellation in the Northern Hemisphere. The two brightest stars are named after Castor and Pollux, twin sons of Leda and Jupiter in Greek mythology.



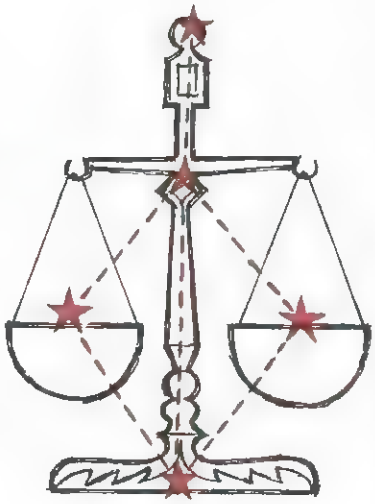
Cancer, the Crab, is a constellation of the Northern Hemisphere. It is also the fourth sign of the zodiac. Within the constellation is the cluster of stars called *Praesepe,* or 'The Manager'.

Virgo, the Virgin, is the sixth sign of the zodiac. The sun enters the sign of Virgo on or about August 23. The bright star *Spica* is near Virgo's left hand. There is a great concentration of spiral galaxies in and near Virgo.

Scorpio, the Scorpion, the eighth sign of the zodiac, was one of the earliest constellations to be named. Scorpio appears in the southern part of the sky, and contains a bright giant star known as *Antares,* which shines with a bright red light.

A scorpion was sent to punish Orion who had boasted that he could kill any creature on earth. The scorpion stung Orion to death and later the gods turned the scorpion into a heavenly constellation.

Leo, or the Lion, is the fifth sign of the zodiac. Leo is one of the oldest constellations, described as a lion in the oldest known zodiac. The brightest star is *Alpha Leonis.*



Libra, the Scales, is a constellation lying in the Southern Hemisphere between the constellations Virgo and Scorpio. Libra is the only sign in the zodiac not representational of a living thing, although the Greeks originally pictured Libra as a constellation represented by the claws of Scorpio, the Scorpion.

Sagittarius, the Archer, is the ninth sign of the zodiac and one of the oldest constellations. The major part of Sagittarius lies north of the Milky Way, a bright arm of which passes through the constellation. The most well-known of its stars is a group called *The Milky Dipper,* but other parts of the constellation contain dark patches of *nebulae.*

In Greek mythology Sagittarius is another name for Chiron, the centaur skilled in the arts of music, medicine and hunting. He taught Achilles and other heroes and, on his death, he was placed in the heavens among the stars.

RED FOR DANGER

Blake's head appeared at the door to the Flight Deck of the Liberator. "What's up?" he asked. "Why are we slowing down?"

Jenna looked up from the viewer where she'd been going through the programme on Fraxen, familiarising herself with their destination and learning about the Federation set-up on the planet as far as it was known.

She glanced at the control panel indicators, then looked up again. "You must be imagining it, Blake. We've been on automatic all the time and it's still registering standard by five."

Blake switched on the scanner and studied the motion of the stars. "If that's standard by five, then I'm a Moravian midget!" he said. "It's more like standard by three."

"STANDARD BY THREE – AND DROPPING," confirmed Zen immediately. "POWER FAILURE CAUSED BY MALFUNCTION."

"Auto-repair?" suggested Jenna, hopefully.

"IMPOSSIBLE. NEW COMPONENT REQUIRED IN ENERGY SUPPLY UNIT. AT PRESENT ENERGY CONFINED TO ENERGY BANKS."

Blake frowned. "That cuts out the auxiliaries too. And the reserve drive. We'll not manage to go far. Where are we near?"

"SUFFICIENT POWER TO REACH RORROS. ATMOSPHERE HAS OXYGEN LEVEL COMPARABLE WITH EARTH. FORTY PERCENT POSSIBILITY OF SPACECRAFT WITH SUITABLE COMPONENT."

Blake realised there was no time to lose.

"Set for Roros, Jenna. Shortest possible route."

As Jenna set the controls, Orac flashed into life. It was the red warning light. "ROROS OFTEN VISITED BY FEDERATION FORCES," said the computer. "ADVISE PROCEED WITH CAUTION."

But with power draining rapidly, they were soon hardly proceeding

at all, never mind with caution. Blake wondered how on earth they were going to reach Roros at this speed – and yet Zen had sounded very sure.

He called the others up to the Flight Deck, and they began to formulate a plan. Suddenly there was a slight lurch and what appeared to be a correspondingly slight increase in speed.

Looking puzzled, Blake activated the scanner. They expected to see Roros, but instead all they saw was a reddish glow, as if everything was bathed in the light of a strong setting sun.

The Liberator no longer seemed to be slowing down, indeed it was going faster than it should have been by then. Jenna guessed there was some sort of gravitational force pulling them in, and that Zen must have taken that into account in his calculations.

Orac's warning light began to flash again, even though on the full three sixty scan there was no sign of another ship, and nothing at all that looked dangerous.

"What is it now, Orac?" asked Avon, grumpily. He wished *he* was in charge of the Liberator. He wouldn't be sitting around if he were, he'd by trying to repair the malfunction. Nothing was impossible – Blake just wasn't interested in him having a try.

Avon was startled from his thoughts by Orac's reply. "RED ATMOSPHERE ON ROROS IS DANGEROUS," warned the computer. "IF EXPOSED TO IT FOR MORE THAN VERY SHORT PERIODS IT AFFECTS BRAIN CELLS – FIRST ERASING MEMORY BANKS, THEN RESTRICTING OTHER FUNCTIONS."

"It's the Federation and their chemicals, I bet," predicted Vila. "Always mucking things up, they are."

Blake had to admit it seemed quite likely.

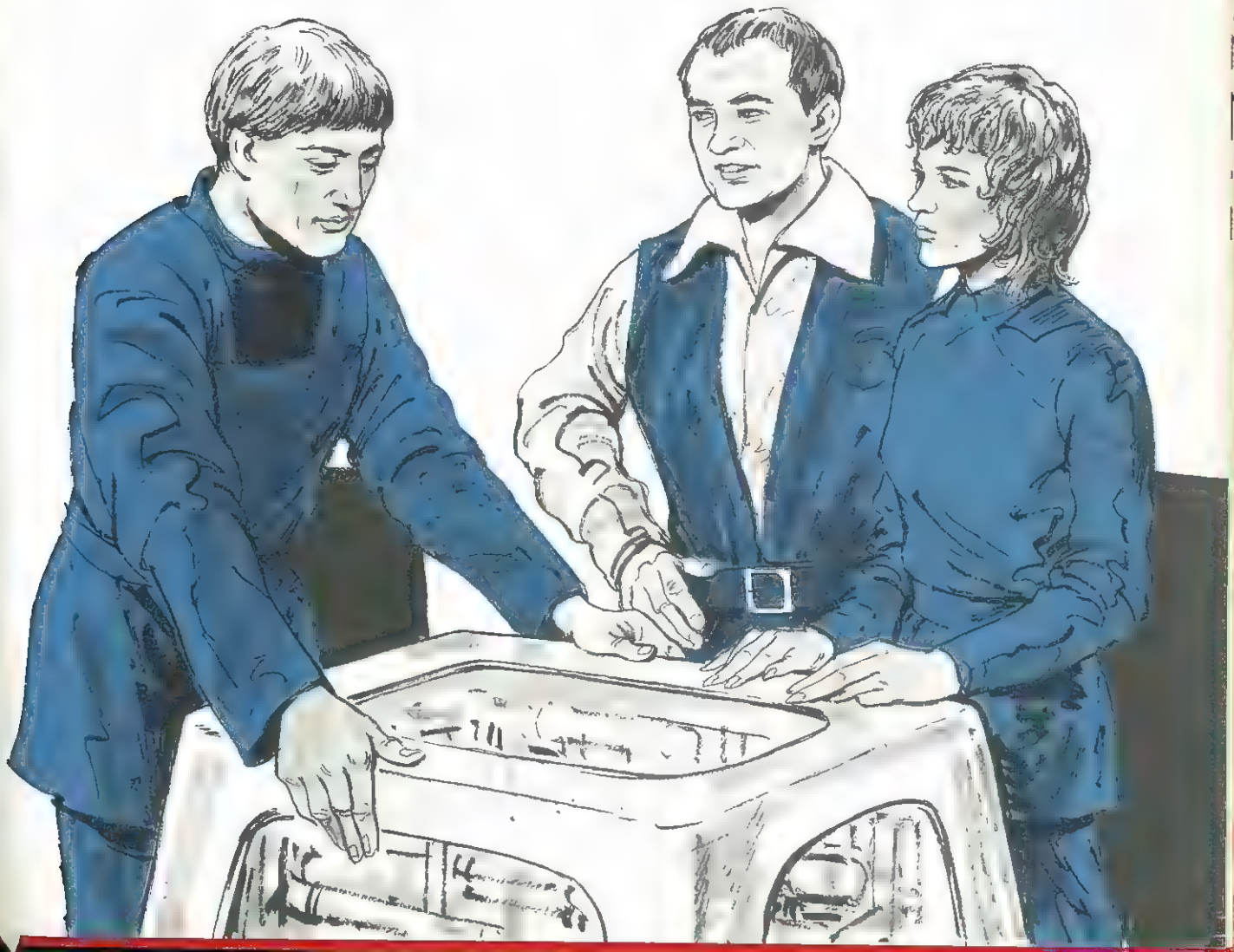
"I knew you should have let me at that malfunction," said Avon, bitterly. "Well, it's too late now, isn't it?"

"It depends what Orac means by 'very short periods' . . ."

"EFFECTS ARE IMMEDIATE, BUT ONLY BECOME DANGEROUS AFTER SIX HOURS."

"Well, that gives us a bit of time, doesn't it?" said Cally, trying to be cheerful. "And really, with no power to pull us out of this gravity, we have no choice. We just have to hope we can find the part and get the job done on Roros, then get off again before the six hours are up."

At this, the others cheered up too – except Avon, who still wanted to attempt the repair immediately.



objective, of course, being to see if she could locate the component they needed.

But after a few minutes she had been in touch with the ship to say that although there were a number of spacecraft around on the surface, the red atmosphere had a rather sticky consistency which made it quite difficult to move.

It was decided that Blake and Jenna should be teleported down to help in the search, while Avon continued to work on restoring power, and while Vila took control of the ship. Cally meanwhile requested a more detailed description of the component.

Blake got the necessary information from Zen, and then joined Jenna in the teleport room.

Once on Roros, he had a good look around. The number of seemingly abandoned spaceships puzzled him. They were dotted all over, as far as the eye could see, and they reminded him of flies caught in a spider's web.

He thought of the way the Liberator had been pulled into the atmosphere, and began to wonder about their sudden mysterious malfunction. Had it been chance, or was it something more sinister? What now prevented all these ships from leaving Roros again, as they hoped to do? Was it that they were still immobilised, or just that the crews had stayed too long in the atmosphere, not knowing how dangerous it was?

There was no one to be seen, but an irregular outline in the distance, barely discernible through the pall of red, held the suggestion of buildings, perhaps even of life.

Leaving the other two with the job of searching the spacecraft, Blake set himself against the viscid material which surrounded him, with the suggestive outline as his aim.

Cally had been right – it was very tacky – and inevitably progress was slow. He took out his weapon and tried firing along the route he wanted to take. But although the ray seemed to destroy the adhesion for a few seconds, that was all, and it would clearly be an extremely cumbersome process.

He looked round. The Liberator had just landed nearby. Ah – he would get Vila to beam him aboard and then teleport him to a point just on the edge of the built-up area.

Even though Blake considered it useless – after all Zen had said they needed a new part – he decided to let Avon have a go.

He just hoped that the Federation didn't decide to make one of their occasional visits to Roros right now. They had enough on their plates to worry about already, quite enough.

By the time the Liberator reached the surface of the planet, Cally had already been in the potentially brainwashing atmosphere for about half an hour. She had volunteered to be beamed down ahead of the ship, to find out what she could, with her main

Back on the Liberator, Avon, surrounded by tools and the various pieces of the dismantled Energy Supply Unit, was forced to admit that Zen had been right – there was no way they could restore power without a new Link Maintenance Valve. Without this, it was impossible for any energy to get through.

There was no indication as to how or why the LMV had begun to malfunction. Avon could detect nothing wrong – it just did not work. A valve had to open and shut, and for some unexplainable reason this one remained firmly shut, as if cemented with invisible glue.

The question was: where would they find another LMV? It wasn't a matter of any old valve – in fact, even LMVs varied from ship to ship. And some ships had none at all.

What had Zen said? A forty percent chance of finding a suitable component? For a second time, Avon doubted the computer's accuracy. And he wanted a second opinion this time.

"Orac?"

"CONFIRM FORTY PERCENT POSSIBILITY," replied the computer, and Avon wondered if he didn't detect a slight irritation at even being asked. But Orac continued: "IT IS WRONG TO ASSUME, OF COURSE, THAT

BECAUSE COMPONENT IS SUITABLE, IT IS ALSO IN WORKING ORDER. REAL POSSIBILITY OF SUCCESS NO MORE THAN THIRTY PERCENT."

And probably a great deal less, thought Avon, especially if the Federation have anything to do with it.

He picked up the old LMV, thinking it might be of some help, and then got Vila to teleport him onto the surface of the planet itself.

Vila was being kept busy, teleporting first Avon and then Blake. The latter rematerialised with pinpoint accuracy, and although he didn't know it at the time, what Blake saw then – the cluster of buildings that had formed the outline – was the only area of habitation on Roros.

At first, deceived by the lack of hustle and bustle, he thought it was empty – a ghost town (or rather village, it was hardly big enough to be thought of as a town) from some previous civilization.

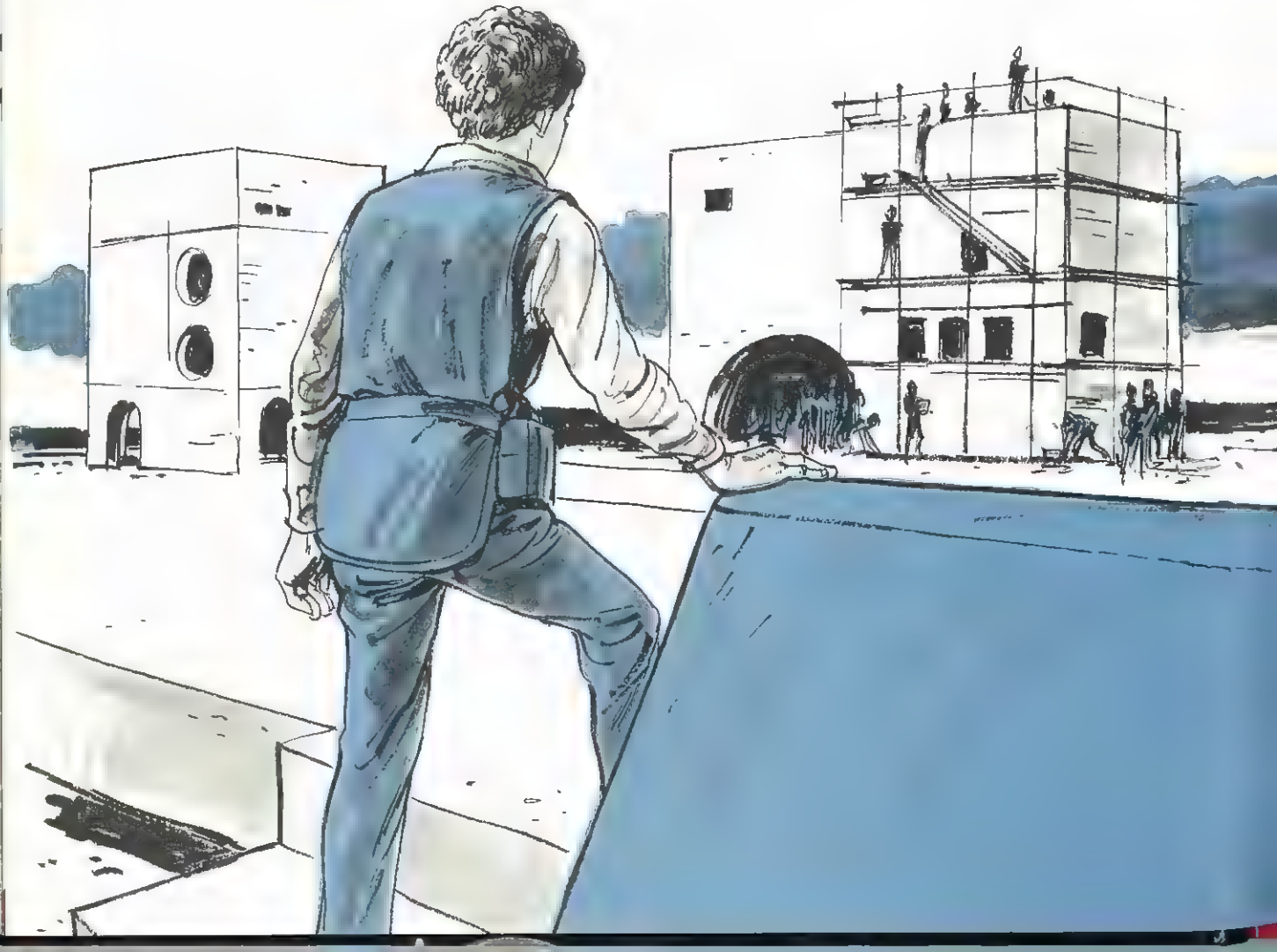
But then he saw figures, quietly moving around as if they were going about their normal business. And their business seemed to be building. Blake wasn't quite sure what it was they were building, but it had already been built up fairly high off its rectangular base, and was certainly going to be very tall.

Could it be a new HQ for the Federation's Space Control, he wondered. No, unlikely – he'd not be standing there seeing what he was seeing if it was. Perhaps then it was simply yet another depository for so-called undesirables and trouble-makers? Perhaps these silent figures were even now building their own prison, or their own crematorium?

Blake looked at the builders. They were a motley gang, and he would have been willing to bet that they represented a fair number of planets between them. And yet their movements, their bearing, their purpose – these were the same for each and every one of them.

He edged forward warily, ready to teleport out at the slightest hint of real danger. But he reached the scene of activity without incident, as the builders continued lumping and humping and building yet higher.

They're just like zombies, thought Blake. It must be the red atmosphere – but did that also programme them for their actions, or was that some separate process? Did they know what they were



building, or were they completely mindless, and unavoidably carrying out someone else's orders?

Blake decided to chance a greeting to one of them as they passed. Two eyes, almost like shafts plucked out of the surrounding glow, beamed red at him out of hollows in a characterless face. The lips, not red but blue as if with cold, quivered as if to speak . . . but then didn't shape a word.

The reply came instead from behind Blake – somewhere over his left shoulder. The single word, 'hello', could have been an echo of his own greeting – straight and formal, neither hostile nor friendly, certainly thought rather than felt.

The voice went on. "Are you from the Federation?" it enquired of Blake, in the same monotone as before.

Blake decided to take another chance. "That's right," he said.

"Good. We have been expecting you. Follow me."

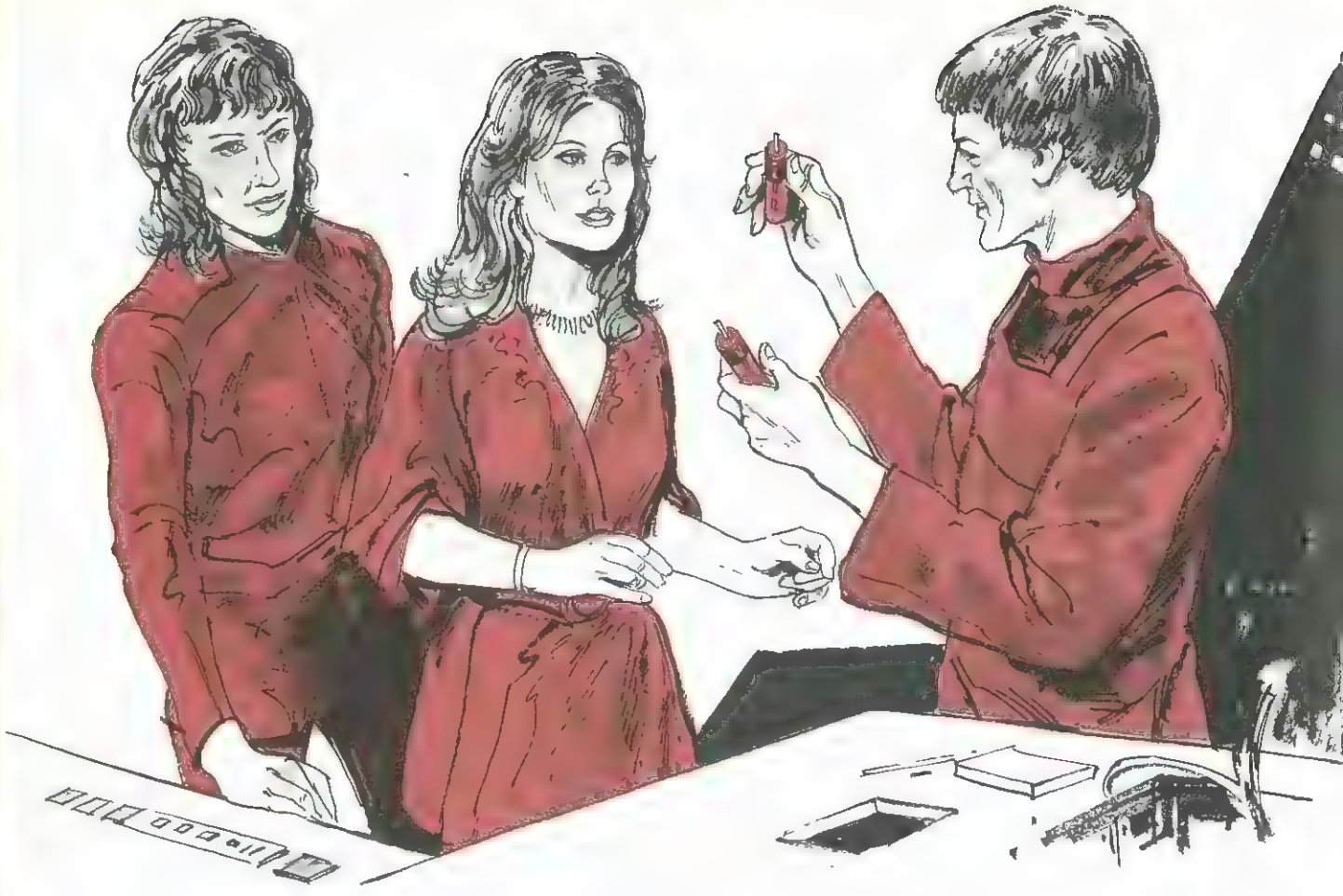
There was nothing much to distinguish this zombie from any of the others, except that it seemed he had been allowed to retain speech and possibly some of the other faculties that his companions had lost.

What am I letting myself in for, thought Blake, as he followed this man. But he allowed himself to be led across to where the bulk of the work seemed to be going on.

Meanwhile the others were having no great success with their search. Even when Avon had turned up with the LMV, it had merely confirmed that they had not previously failed to recognise the vital part.

The atmosphere continued to slow them down and make the comparatively short distances between the spacecraft seem long and tiring. It must have taken them at least a couple of hours to check the first three of the abandoned ships, and each one of them was a very different sort of craft, which made it no easy task to locate each power unit.

Each time, too, the inside workings were different, and none of them were the same as on the Liberator. Once they thought they had struck lucky when the supply unit at least was similar to their own, but it turned out to be the



valveless sort of link which maintained pressure using a locking-cap rather than an LMV.

They had no more joy with the fourth ship, nor the fifth . . . and time was ticking inexorably on towards the point where, they feared, they would begin to lose whole chunks of their past to the accumulated effects of the pervading red glow.

While Avon was conducting the essential investigation on the sixth ship, Cally and Jenna decided to take a look around. Reaching the Flight Deck, Jenna found a notice giving 'Instructions for an Emergency', and on it the ship's name – the Crusader.

Cally called her over to the desk. "These controls," she said, "aren't they the same as on the Liberator?"

It didn't take Jenna long to make up her mind. "You're right," she said, "they're almost identical. I wonder . . ."

But she was interrupted by a shout from Avon. "Jenna! Cally!"

They rushed back, to find Avon holding two identical components, one in each hand. At last they had found another Link Maintenance Valve!

As Blake examined the builders' work, he wished he knew what was expected of him. The zombie who had led him across was giving him a fixed red stare, as if waiting for him to say something.

Oh well, he supposed now he'd started he'd have to go through with it. But as he continued to look the half-constructed building up and down without comment, the gaze upon him seemed totally empty: devoid of curiosity, criticism or impatience.

Eventually the monotone spoke.

"Is progress satisfactory?" it said.

Now the question came as no surprise to Blake, but he was in two minds what to answer. Should he play safe and just try and learn as much as he could? Or should he gamble all the way, and hope for actual positive results?

He assumed an authoritative tone for his reply. "Yes, progress is satisfactory," he said. "However, there is a change of plan. The building is no longer needed. You are to take it down and dispose of all the materials."

There was a pause while the zombie processed this new order. Blake wondered how the instruction would be passed on to the worker zombies. Perhaps it would prove impossible? If so, would it bring the workforce to a standstill, or would they merely carry on as before?

He found out soon enough. The man in charge put his hand to his mouth and blew one short blast on what turned out to be a whistle. Work immediately stopped. There followed three more blasts, at which the zombies fell into line behind their leader and trooped off,

with a curious Blake close behind.

Back in the Crusader there was a distinct lack of jubilation on three tired-looking faces. Cally, Jenna and Avon looked at each other as if they couldn't believe their rotten luck.

For, on closer inspection, Avon had noticed that the Crusader's LMV was also jammed tight and that there was no way he could loosen it, any more than he had been able to repair the valve from the Liberator.

There was a distinct air of gloom. When Cally remarked that it seemed too much of a coincidence that both LMVs should just have happened to acquire the same fault, it merely voiced what they'd all been thinking. It made them even more miserable to think that probably any other LMV they found would be similarly useless.

Avon was all for giving up. "Thirty percent, Orac said. We might search all day and still not find it. I reckon it's best to go back and have another go at fixing our own malfunction . . ."

"Just one more ship," urged Jenna. "I think we ought to try just one more."

"What about you, Cally? It's your casting vote."

Cally hesitated, obviously unsure. She felt tired and didn't relish the struggle to another ship. But while there was still a chance . . .

"I agree with Jenna," she said, at last.

Luckily the seventh ship was nearer than they had at first thought, and it took only about a quarter of an hour to reach it. As they climbed in, Jenna made a rough calculation – it must be about five hours since they'd first breathed whatever was in this atmosphere, so if they were going to be lucky it would have to be soon.

Once again, Avon dealt with the workings while the others looked over the ship. Cally and Jenna were just making another discovery on this Flight Deck when they heard Avon call.

Again he was holding two LMVs.

"It really is alright this time," he said. "We'd better tell Vila."

But Cally also had something to say. "Do you know what we found? *This* ship *isn't* abandoned – someone's been left up on the Flight Deck. We buzzed off before they saw us, but they may find out before long . . ."

Avon quickly turned back to the unit. "In that case, we'd better hurry! I'll just put this dud LMV in place of theirs . . ."

Cally nodded and tried to get through to Vila. There was no response. "Vila!" she yelled into her bracelet.

"Er . . . yes?"

He must have been half asleep, she thought.

"Be prepared to teleport. Have you heard from Blake?"

"No. Isn't he with you?"

"No."

Avon clicked the door to the unit back in place. "Right, I'm ready, Vila. Bring us up." And then, as they rematerialised in the teleport room, he sighed with relief. "Phew, I'm glad I didn't know there was anyone on that ship before. I wonder whose it is?"

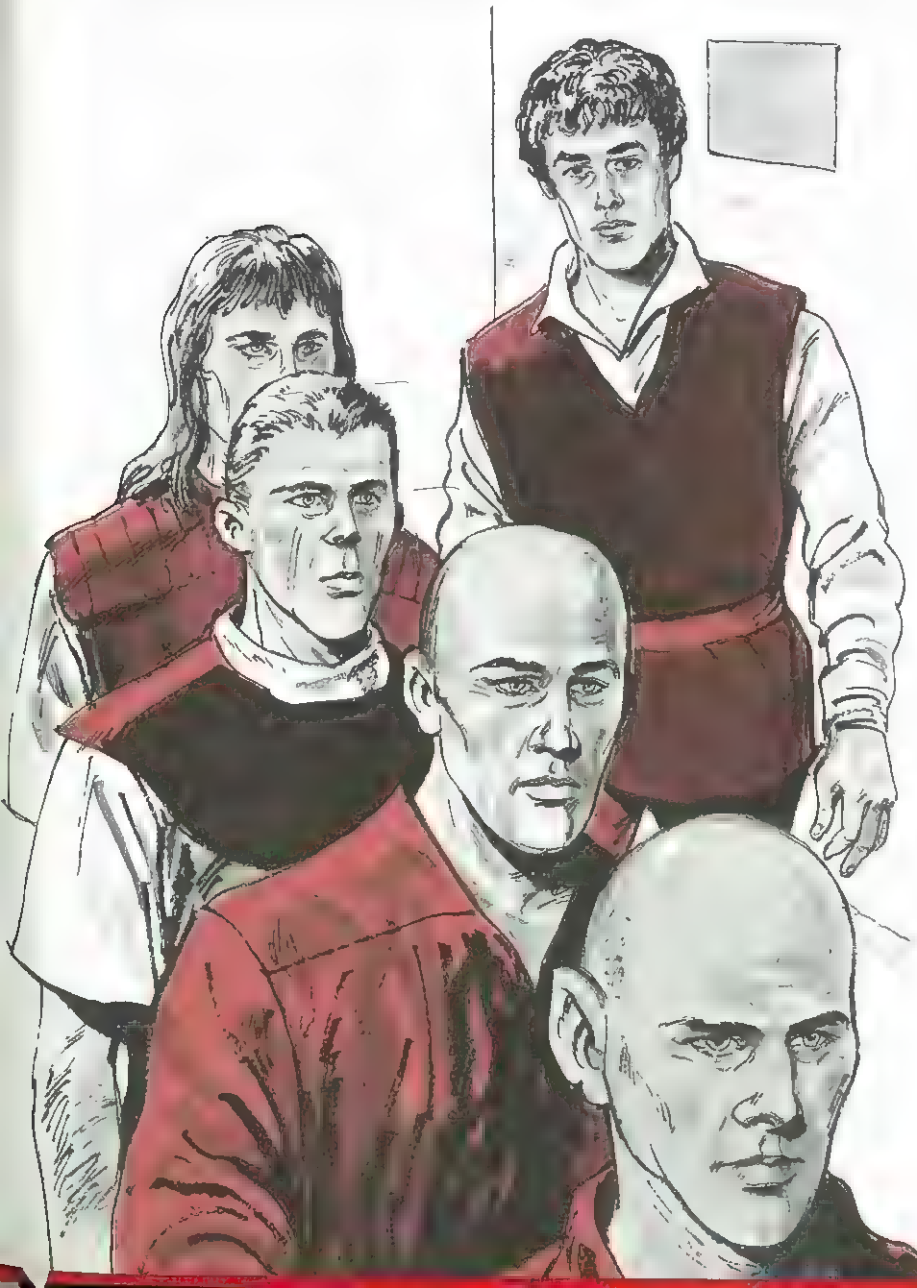
"I'll tell you," said Jenna. "Not only is it the Federation's ship, it's actually Travis's!"

Vila drew in his breath.

"I just hope Blake's alright," said Cally. "Apart from anything else, the six hours must almost be up."

"In ten minutes," confirmed Vila.

"Well, even though I've immobilised Travis's ship, we'd better be ready to move fast," said Avon. "I'll go and fit this LMV. OK?"



ANSWERS

UFO

1. Buffeted; 2. Van Allen Belts; 3. Edwin Aldrin; 4. Blake; 5. Reflector; 6. Orbital; 7. Target; 8. Asteroid; 9. Voskhod; 10. Imprisonment.
Panels: LEFT-Liberator; RIGHT-Federation. (Although the Liberator is a Federation Ship, it is of course now in the hands of BLAKE'S SEVEN!).

A NUMBERED SPACECRAFT

LIBERATOR.

FEDERATION TEST SHEET

1. The sun's diameter is 109 times that of the earth, and its mass is 330,000 times greater.
2. It is a cloud of gas in deep space with the shape of a horse's head.
3. They are ten miles thick and 42,000 miles across.
4. It is thought so. It seems that galaxies form definite patterns while new star galaxies have irregular shapes.
5. Perhaps. It was once thought that one or more of these moons exerted a great pull on the oceans—hence the salty water of Lake Titicaca in the South American mountains.

CALLING ALL CALS

1. Cally. 2. Calendar. 3. Calamity. 4. Calculator. 5. Callous. 6. Calm. 7. Calf. 8. Calyx. 9. Callow. 10. Calibre. 11. Calligraphy. 12. Calorie.

"OK," replied Cally. And she and the others settled down to wait for some news from Blake.

Meanwhile, Blake had followed the line of zombies to another rectangular building, this one smaller and fully built. He watched as each zombie – apart from the leader – went in through one door, paused for a moment in the midst of some machinery, and then went out through a second door, waiting there for the others.

Blake guessed this was the programming room. He waited until the operation was finished, then instead of following on back to the site to watch the destruction, he peered in through the open door. He took a couple of steps and nothing happened. Then he ventured further in.

Suddenly there was a whirring noise, and he drew back – just in time, for a clamp shot out which would have held him in position while (presumably) erasing old data and adding the new. Whether it would have affected him, or whether it only worked on the already brainwashed, was something he did not wish to find out by experience.

When the process was over, he eyed the place directly below the clamp. Was it activated by stepping on the floor, or was there an electric eye, or some other device?

He took a run and a jump. Behind him the whirring began again, and so did the clamp.

Ignoring it, Blake continued into the main part of the building, where machines galore were almost bursting open the walls. Perhaps that was why they needed the new building? Oh well, they'll just have to start again, he thought.

Now what was all this machinery? He recognised sophisticated radar equipment and what looked like a giant magnet, with the active metallic shield built in as part of the roof.

And this machine in the corner? What could it be?

He peered at the controls, and suddenly it became clear. He'd seen a machine like this before. It was a Metal Reformer, used to melt and reshape any metal, or even to lock it into a certain structure – even from a great distance.

That must be it! Ships were being attracted towards Roros by the magnet, and then being put out of action by the Reformer, for instance by jamming an LMV. Then it would be straightforward to pull the craft in until the atmosphere took over, and in more ways than one.

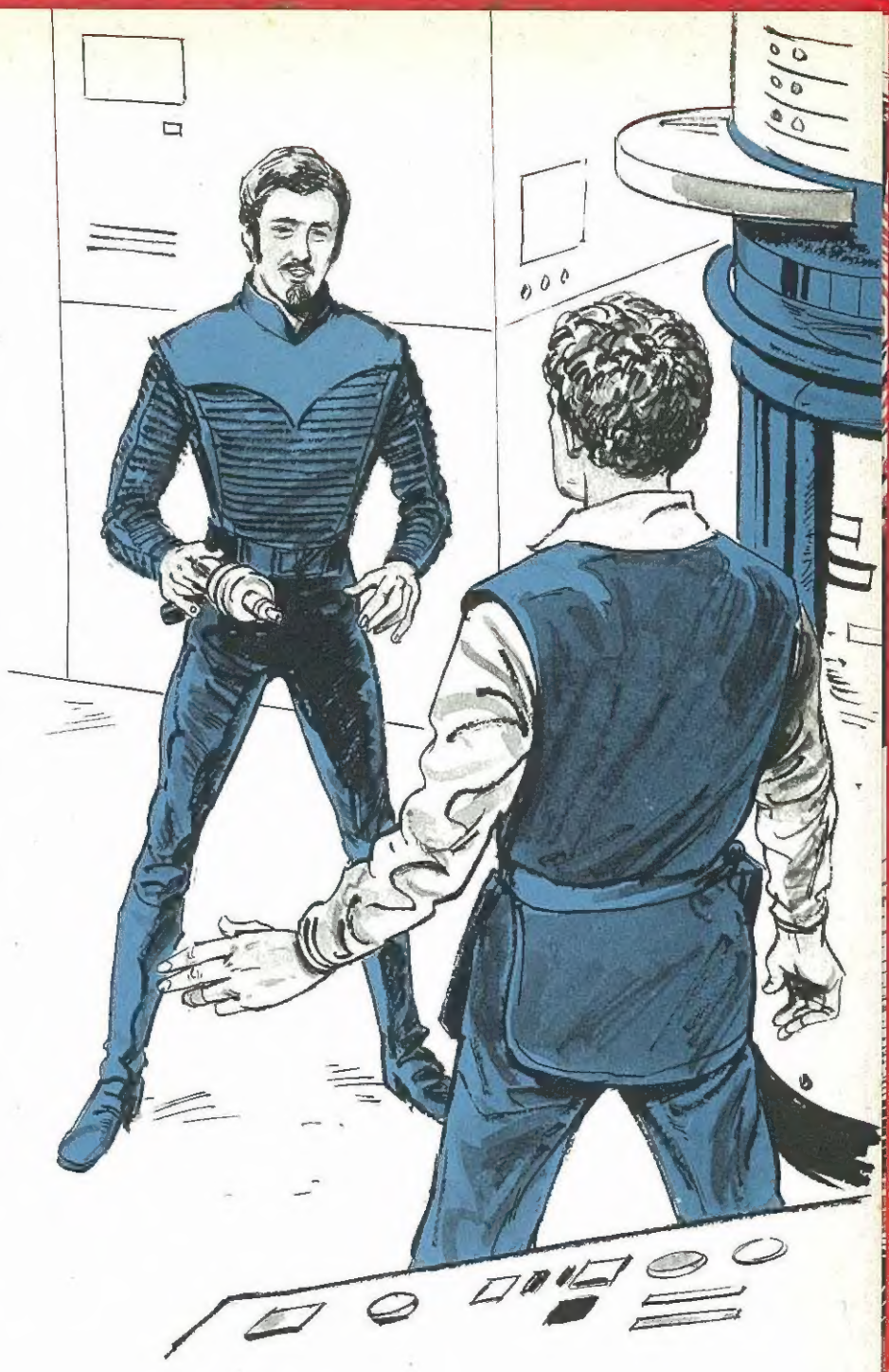
But what happened when a Federation ship came by? Surely *they* must escape being trapped? But how . . .?

Blake was deep in thought when the slightest movement somewhere behind him triggered an alarm in his head and put him on his guard. He swivelled round and there was Travis – weapon in hand.

"Ah – Blake – I have caught up with you at last!" said the Space Commander, hardly able to believe his luck. "You know, I have been waiting a long time for this. A very long time."

And you'll wait a sight longer yet, thought Blake, waiting for just the right moment to act.

"Oh, have you, Travis?" was all he said.



But he spoke so that Vila, back on the Liberator, could not help but hear. Then he gestured furtively, as if to try and attract the attention of someone a little way behind Travis.

The Colonel fell for it. He swung round, and as he did, Blake squeezed in behind the base of the tall magnet, out of Travis's range and reach.

"Right, Vila! Quick!"

This time, Vila's finger must have been at the ready, for he reacted like greased lightning, and Blake was back on the Liberator before Travis had grasped the enormity of his mistake.

"Pity you couldn't have destroyed that building, too," said Avon, when Blake had told his story. "But at least we've given Travis something to think about. Now he'll have to find some way to repair his own LMV!"

And with that comforting thought, they made off for Fraxen, just as fast as they could.

Blake's space race

If the Liberator can reach the planet Querxia before the Federation forces, Blake's crew have a good chance of sabotaging an important communications system nearing completion. But time is short!

All you need is 2 dice and two counters . . . each throw a 7 to start. Use 1 dice each after the first throw. The first to throw a 6 from square 34 wins.

LIBERATOR

FEDERATION

1

1

2 TOO MUCH GRAVITY MISS 2 TURNS

3

4

5 ATTACK ENEMY SHIP GO ON 4

6 UNREST ON SHIP GO BACK 2

2

3

4 PASS CYGNUS ALPHA SLOW DOWN

5

6 CAUGHT IN ASTEROID STORM MISS 2 TURNS FOR REPAIRS

7

7

8 CUT IN OVERDRIVE GO AHEAD 6

9 AVON IMPROVES ENGINES FULL SPEED 4 SQUARES

10 DETOUR TO DESTROY PIRATE SHIP MISS 1 TURN

11 COSMIC RAYS GO BACK 1

12 EMERGENCY LANDING ON JUPITER FOR FUEL STAY BACK 2 TURNS

13 GOOD BLAST OFF ANOTHER TURN

14

15 TOO CLOSE TO THE SUN BACK 4

8

9

10

11

12

13 JENNA OUTWITS THE FEDERATION ADVANCE 3

14 FUEL TANK LEAKING STAY FOR 2 TURNS

15

16

16

17 DISPUTE BETWEEN VILA & BLAKE GO BACK 5

17

18 ZEN ADVISES ALTERNATIVE ROUTE ADVANCE TO 26

18 LIBERATOR IN SIGHT GO ON 2

19

19

20

20

21

21

22

22 CONTROLS JAMMED! BACK 2

23

23 COLLISION COURSE! AVOID BY MISSING 2 TURNS

24 MYSTERIOUS VIRUS ATTACKS CREW – STAY BEHIND 1 TURN

24 CLEAR SPACE ANOTHER TURN

25 SHIP DAMAGED BY METEORS BACK 5

25

26

26

27 AVOID DANGEROUS FORCE-FIELD (CALLY'S TELEPATHY) ANOTHER TURN

27 CROSS TIME ZONE MISS 1 TURN

28

28 BEAM DOWN FOR EMERGENCY SUPPLIES TO SAURIAN BACK 3

29

29 ATTACK BY TRAVIS! WIN AND ADVANCE 3

30 PREPARE FOR LANDING AHEAD 2

30 LAST MINUTE HITCH! ORBIT AGAIN & MISS 1 TURN

31 UNKNOWN FORCE-FIELD! WAIT HERE 3 TURNS

31 READY TO LAND GO ON 34

32

32

33 ALIEN ATTACK RETURN TO BEGINNING!

33

34

34

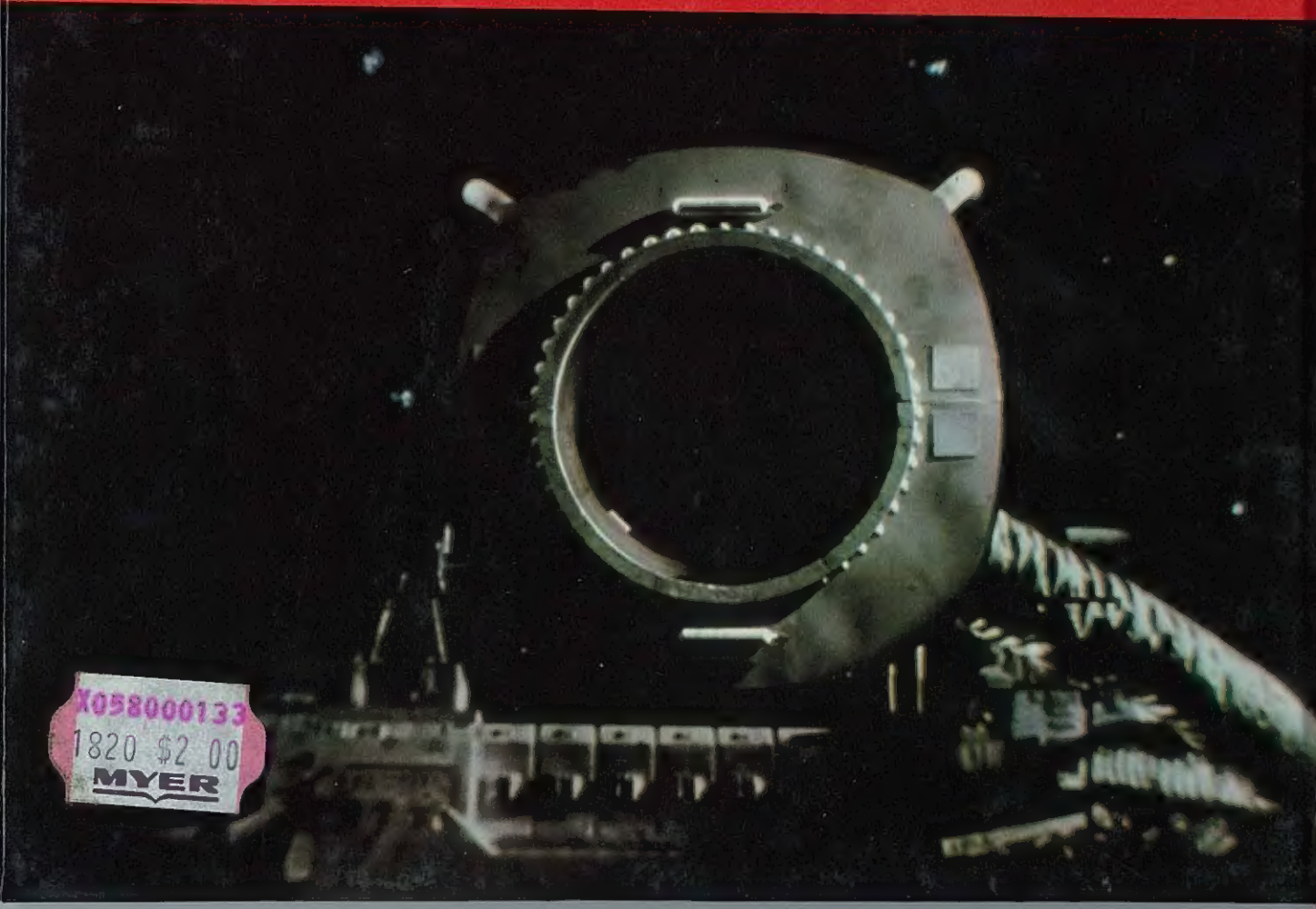
Querxia

SBN 7235 6548 1

Terry Nation's

BLAKE'S 7

Annual 1980



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